2009 and 2010 was unavailable as it was not stored electronically.

Results 385 patients were referred for MDT review from 2005 to 2008 (n = 167) and 2011 to 2013 (n = 218). Usual Interstitial Pneumonia (UIP) was the pre-MDT diagnosis in 144 (37%) cases. Post-MDT 71 (49%) individuals had their diagnosis altered, leading to a change of treatment in 37 (52%) cases. A further 3 patients were referred for biopsy. One individual died pre-MDT and therefore was not discussed.

Of the 68 cases referred with no diagnosis multidisciplinary consensus was reached in 60 (88%) cases. The remaining 172 were referred with a range of aetiologies.

Conclusion Our findings support ARS/ERS consensus guidelines[1] which strongly advise the implementation of multidisciplinary discussion in the care of the individual with interstitial lung disease.

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S13 SOLE USE OF FORCED VITAL CAPACITY AS PER NATIONAL INSTITUTE OF HEALTH AND CARE EXCELLENCE CRITERIA DISADVANTAGE 2 IN 5 PEOPLE WITH IDIOPATHIC PULMONARY FIBROSIS

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Introduction Pirfenidone has undergone NICE approval and is recommended for patients with IPF if the FVC is 50–80% 1. We hypothesised that the NICE guidance would disadvantage a significant cohort of IPF patients who have moderate reduction in transfer factor despite preserved FVC.

Methods We retrospectively reassessed the eligibility of fifty IPF patients on the named patient programme using the NICE guidance. Electronic CT and clinical reports were analysed for the presence of coexisting emphysema.

Results Of fifty patients we identified that 20/50 (40%) would not have been prescribed pirfenidone as per the NICE criteria. The average FVC was significantly higher in the 20 patients that did not meet the NICE criteria compared to those that did (97.6 ± 16.24% vs. 65.48 ± 8.56% ($p < 0.001$) respectively. In contrast there was no difference in transfer factor between the two groups (42.35 ± 14.66% vs. 44.74 ± 12.29%) respectively.

The frequency of emphysema was statistically different between those that met the NICE criteria and those that did not (3 vs. 8 $p = 0.0409$). Of those patients that had an FVC greater than 80%, 12/20 (60%) had no emphysema visible on CT imaging and 2 (10%), 4 (20%) and 2 (10%) had evidence of mild, moderate and severe emphysema respectively. However, the average transfer factor was not significantly different between those with or without emphysema (35.75% vs. 46.75% respectively).

Conclusion This retrospective data demonstrates that the sole use of FVC in the NICE criteria for treating IPF disadvantages 40% of patients who demonstrate a significant reduction in transfer factor despite FVC greater than 80%. In this study this reduced transfer factor and preserved FVC can only be attributed to the presence of coexisting emphysema in 8/20 (40%) of patients. 60% of patients had IPF alone with FVC greater than 80% despite an average transfer factor of 47%, which was not statistically different to those with coexisting emphysema. We would therefore advocate the use of both FVC and DLCO when assessing patient suitability for pirfenidone treatment for IPF. The use of FVC alone excludes a substantial cohort of IPF patients who have preserved FVC, reduced DLCO with or without coexisting emphysema.

S14 FVC AS A SURROGATE MARKER FOR DEATH AND HOSPITALISATION IN IPF, SARCOID AND BRONCHIECTASIS CLINICAL TRIALS

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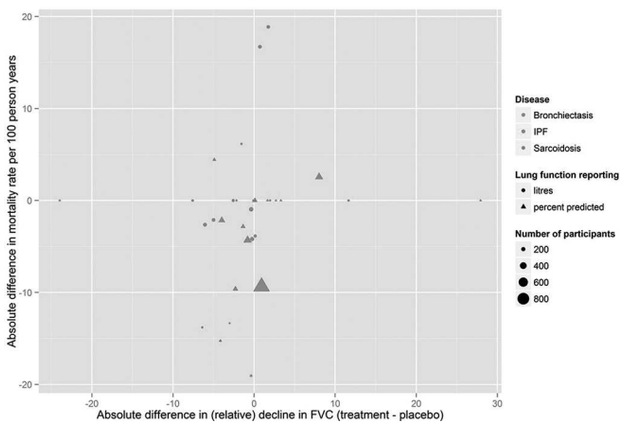
Introduction & Objectives Decline in Forced Vital Capacity (FVC) is predictive of mortality in IPF and is commonly used as an end-point in IPF clinical trials. FVC has not, however, been formally validated as a surrogate end-point for death or hospitalisation, making it difficult to interpret the clinical importance of differences in decline in FVC, and its use controversial. Change in FVC has also been used in other chronic lung diseases as a clinical trial end-point. The aim of this project was to determine if FVC is a surrogate end-point for mortality and/or hospitalisation in IPF, sarcoidosis and bronchiectasis trials. We also aimed to comment on the reporting of FVC in chronic lung disease trials.

Methods A systematic review was conducted. MEDLINE, EMBASE, LILACS and CENTRAL (1990-present) were searched on 25/03/2013. Reference lists and relevant journals (Jan-Apr 2013) were hand-searched, and experts in the field contacted to identify further studies. Only randomised controlled trials of drug interventions in adult participants with IPF, sarcoidosis and bronchiectasis were considered.

Results 42 studies were identified, 37 of which were included in linear regression analysis. All studies reported mortality, and 17 studies reported hospitalisation. No association was found between difference in annual decline in FVC and annual mortality or hospitalisation rate (see graph). It was frequently difficult to combine results across studies due to variation in measures reported, or due to insufficient detail in reports. 32 studies reported change in FVC: 24 studies reported absolute changes (e.g. 7.2% decline from 67.6% to 60.4%), 4 reported relative change (e.g. 7.1% decline from 70.7% to 65.7%), and one study reported both. Clarification of change type from authors was required for 16 studies.



Abstract S14 Figure 1.

Conclusions 1. Results of this analysis do not support the use of FVC as a surrogate end-point for mortality or hospitalisation in IPF, sarcoidosis or bronchiectasis trials. 2. Reporting of FVC in clinical trials is highly variable making synthesis of results for meta-analysis difficult. We suggest all trials make available baseline, final and change in FVC, both unadjusted and percent predicted, and as relative (% change), at least in an online appendix.

S15 FVC OR TLCO? IMPACT ON TREATMENT FOLLOWING NICE (NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE) APPROVAL OF PIRFENIDONE

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Introduction Idiopathic Pulmonary Fibrosis (IPF) is a progressive, fatal lung disease with median survival of 3 years (1). NICE has recently approved Pirfenidone, which is the first licensed treatment for IPF. Pirfenidone is licensed for mild to moderate IPF, and the current NICE recommendation is that all patients with FVC (Forced Vital capacity) between 50–80% predicted should be considered for therapy. However, there is no agreed classification of disease severity in IPF. In clinical practice a combination of both FVC and DL_{CO} (diffusion of lung carbon monoxide) is used to monitor disease progression. We explore the practical impact of using FVC on Pirfenidone prescribing.
Methods 218 incident cases of IPF have been enrolled in a prospective cohort study PROFILE in Central England from September 2009 to June 2013. All patients had a diagnosis of definite or probable IPF based on the ATS consensus 2000. The patients were stratified according to both FVC and DLco. Lung function defects were considered mild (FVC>80%, DL_{CO}>60%), moderate (FVC 50–80%, DL_{CO} 40–60%) and severe (FVC<50%, DL_{CO} <40%).
Results The median age was 72 years with majority cohort males (77% males' vs 23%females). 181(84%) cases met diagnostic criteria for definite IPF. There was only a moderate correlation between FVC and T_LCO with correlation coefficient = 0.54 and $p < 0.001$. A total of 79 patients (44%) would be eligible for treatment based on FVC criteria. However, this includes 46 patients (25%) who might be considered to have severe disease based on DLco criteria. (Table 1)
Conclusion Over half our patients eligible for Pirfenidone, based on current NICE criteria, will have severely reduced DL_{CO}. This highlights the need for an agreed classification of IPF disease severity. Follow up of PROFILE study patients may help guide a classification system.

REFERENCES

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Abstract S15 Table 1. PROFILE cohort September 2009 to June 2013 Nottingham & Central England NHS Trust

	FVC at diagnosis			
DL_{CO}(↓)	*Mild (>80%)*	*Moderate (50–80%)*	*Severe (<50%)*	Total (n)
Mild (>60%)	34	4	0	38
Moderate (40–60%)	40	29	1	70
Severe (<40%)	22	46	5	73
Total (n)	96	79	6	181

S16 OUTCOMES IN IDIOPATHIC PULMONARY FIBROSIS: A META-ANALYSIS FROM PLACEBO CONTROLLED TRIALS

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Background Much of the data regarding the natural history of Idiopathic pulmonary fibrosis (IPF) pre-dates current clinical criteria. Despite high mortality debate has been sparked recently regarding the appropriateness of mortality as an endpoint for clinical trials. Additionally, respiratory infections are seen to have a role in the natural history of IPF. We aimed to evaluate the frequency of mortality and respiratory infections in the placebo arms of IPF trials.
Methods We identified randomised, placebo-controlled trials of IPF though a systematic review of MEDLINE, EMBASE, AMED and Cochrane central. Outcomes were mortality and lower respiratory tract infection (LRTI). We standardised event rates and compared differences using incidence rate ratios between subgroups of trials, according to disease severity inclusion or use of low-dose corticosteroids).
Results Thirteentrials were included, involving 1631 patients (2067.7 patient-years of follow-up). Standardised mortality was 91.9 deaths per 1,000 patient-years (range 18.8 to 224.5 per 1,000 years), though rates were higher in trials permitting low-dose immunosuppression and lower in trials excluding severe disease (table 1). Rates of respiratory tract infections were higher in trials including severe disease and in trials including patients receiving immunosuppression (table 1)
Conclusion Mortality rate was heterogenous and dependent on entry criteria, with rates in studies excluding severe disease half that of unselected studies. Rates of infection in IPF are high, even without concurrent use of immunosuppression. Given low mortality rates, consideration should be given to alternative primary outcomes to mortality in future IPF trials of patients with mild-moderate disease.

Abstract S16 Table 1.

	Rate per 1,000 patient-years follow-up		*Incidence rate ratio (95% C.I.)*	
	Standardised Mortality Rate	Standardised LRTI Rate	Mortality	LRTIs
All trials	91.9	172.5	-	-
Permitting low-dose (< 20mg/day) steroids	95.8	227.1		
No steroids	72.9	63.4	1.31 (0.93–1.88)	3.58 (2.16–5.13)
Severe disease (FVC<55%) included	188.6	257.8		
Severe disease excluded	78.6	153.9	0.42 (0.30–0.59)	0.60 (0.45–0.81)

S17 A PROTHROMBOTIC STATE IS ASSOCIATED WITH INCREASED MORTALITY IN IDIOPATHIC PULMONARY FIBROSIS

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