and 4 (4.2%) had a percentage $\geq 50\%$. Eosinophil count was $\geq 5\%$ in 17 (17.9%), and $\geq 25\%$ in 2 (2.1%). When assessing quality of samples as per guidelines the percentage of other cells (epithelial/columnar cells) at analysis was more than 5% in 57 (60%) patients. In 37 (38.9%) patients the volume instilled was more than 100 ml. In only 13 (13.7%) patients the volume of fluid retained back was $\geq 30\%$ of instilled volume. Despite this 76 (80%) patients the volume of fluid obtained for analysis was more than 10 ml. There were no immediate complications reported. 50 (52.6%) of the operators were consultants, 30 (31.6%) were registrars, and in 15 (15.8%) operator was not recorded.

Conclusion The quality of BAL sample is very important for diagnostic accuracy in ILD. Our data shows that BAL performed by general respiratory physicians can be of poor quality. We would advocate adequate training in BAL plus investment in dedicated ILD lists may improve engagement and quality. This data supports the BTS bronchoscopy guidelines in performing regular audit to ensure quality is maintained.

REFERENCE

1. Wells A, Hirani N. Interstitial lung disease guideline. *Thorax* 2008;63(5):v1–v58.
2. Meyer K, Raghu G, Baughman R, et al. An Official American thoracic society clinical practice guideline: The clinical utility of bronchoalveolar lavage cellular analysis in interstitial lung disease. *American Journal of Respiratory and Critical Care Medicine* 2012;185(9):1004–1014.

P152

THE ASSOCIATION BETWEEN ADULT HEIGHT, SOCIOECONOMIC STATUS AND IDIOPATHIC PULMONARY FIBROSIS: A POPULATION BASED CASE-CONTROL STUDY

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Background Idiopathic pulmonary fibrosis (IPF) is an increasingly important public health issue worldwide, but the underlying aetiology is still unknown. The aim of this study was to investigate whether adult height or socioeconomic status are associated with the lifetime risk of developing IPF.

Methods We used data from The Health Improvement Network (THIN), an electronic longitudinal UK primary care database to conduct a matched case-control study to investigate if adult height and socioeconomic status are associated with IPF. Incident cases of IPF were identified using previously published Read Codes. General population controls were identified as a 4:1 incident density sample, matched by age, gender and general practice. Our exposures were adult height and socio-economic index as measured by Townsend Index recorded before the date of diagnosis. We used conditional logistic regression to estimate odds ratios for the associations between each exposure and IPF. Adult height was modelled as quintiles and as a continuous variable.

Results The final study population consisted of 1699 incident cases of IPF and 5339 matched general population controls. Mean age of cases was 74.6 years (Standard Deviation [SD] 9.6) and 64.2% were male. Mean height in men and women were 1.73 (SD 0.07) and 1.59 (SD 0.6) metres respectively. There was no association between adult height quintiles and IPF after adjusting for socio-economic status (see Table 1). However, when modelled as a continuous variable, we found

a weak inverse association between every metre increase in adult height and IPF, after controlling for socio-economic status. (OR 0.46, 95% CI 0.19–1.07; $p=0.07$). There was also strong evidence of effect modification between adult height and sex ($p=0.03$), such that the effect of increasing height quintile was stronger in women (OR 0.93, 95% CI 0.87 to 0.99) and weaker in men (OR 0.99, 95% CI 0.94 to 1.04). We found no association between socio-economic status and IPF (see Table 1).

Conclusions Our findings raise the possibility that early life exposures may influence the lifetime risk of developing idiopathic pulmonary fibrosis. We also demonstrated that unlike many respiratory diseases, IPF is spread evenly through all sections of society.

Abstract P152 Table 1 Odds ratios for the association between IPF, height quintile and Townsend score

	Univariate analysis		Multivariate analysis*	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Quintile of Height				
1 (shortest)	1.00		1.00	
2	0.94	0.78–1.14	0.94	0.78–1.14
3	0.92	0.74–1.15	0.93	0.74–1.15
4	0.86	0.65–1.05	0.87	0.65–1.06
5 (tallest)	0.83	0.67–1.10	0.85	0.68–1.11
Quintile of Townsend Score				
1 (most disadvantaged)	1.00		1.00	
2	1.02	0.86–1.21	1.02	0.86–1.21
3	0.93	0.77–1.11	0.92	0.76–1.11
4	1.05	0.86–1.27	1.04	0.86–1.27
5 (least disadvantaged)	1.07	0.86–1.35	1.07	0.85–1.34

*Adjusted for all other variables in the table

P153

CLINICAL FRAILTY SCORE BUT NOT AGE IS ASSOCIATED WITH EARLY TREATMENT DISCONTINUATION WITH ANTIFIBROTIC MEDICATION IN IDIOPATHIC PULMONARY FIBROSIS

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Introduction Antifibrotic medication (AFM) is indicated for the treatment of idiopathic pulmonary fibrosis (IPF), but medication related side effects can lead to early discontinuation of therapy in some patients. Factors that may predict intolerance of AFM are poorly described

Methods Retrospective data from all patients from a single District General Hospital that had received AFM for IPF between January 2014 and March 2017 were analysed. Patients were defined at four months as either tolerant or intolerant of AFM determined by either continuation of treatment, or discontinuation of treatment because of medication related side effects respectively. Fisher's exact test was used to compare age, body mass index (BMI) and Clinical Frailty Score (CFS) between the two groups. Frailty was defined as a