Background Idiopathic pulmonary fibrosis (IPF) is a progressive, irreversible and ultimately fatal disease. An association between diabetes, obesity and IPF has previously been demonstrated.[1] Decreasing body mass index (BMI) is predictive of worse survival in Japanese cohorts.[2]

Objective To investigate the metabolic characteristics in our cohort of IPF patients (South West Peninsula, England) receiving anti-fibrotic therapy (nintedanib or pirfenidone), observe how BMI changes over time and relationships with changes in forced vital capacity (FVC) and survival.

Method Data was collected from IPF patients at the Regional Exeter ILD Centre at diagnosis (age, gender, FVC, BMI, co-morbidities) and subsequent appointments (FVC and BMI). Change between BMI/FVC at diagnosis and most recent BMI/FVC were calculated and standardised to time elapsed between data points (DBMI or DFVC respectively). National data were from Public Health England (2014 datasets).

Results We reviewed 90 patients receiving antifibrotics. 76 were male (84%), mean age was 74. Their co-morbidities are illustrated by Table 1. Type 2 diabetes mellitus affected 14 patients (16%), compared with 12% in the age-adjusted general population. Recent BMIs were available for 46 patients. 10 patients (20%) had a normal BMI 18.5–24.99 (compared with a national average of 37%). Mean BMI (28.3) was significantly increased above the national average (27.3; $p<0.05$ one-tailed t-test). Pearson correlation coefficient for change in BMI and survival was $r=-0.55$, 95% confidence interval −0.90 to 0.25 (8 patients). Where DBMI and DFVC were temporally overlapping (19 patients), no correlation was found.

Conclusions A large proportion of our IPF cohort were classified as obese. Diabetes was a common comorbidity, and higher than the national average. Over time, most patients demonstrated a reduction in their BMI. In contrast to East Asian data, this reduction in BMI did not correlate with reduction in FVC or survival.

Abstract P147 Table 1 Characteristics of the exeter IPF cohort (SD=standard deviation)

IPF patients	**n=90**
Age (years) (SD)	74 (9)
Gender, male	76 (84%)
Current Treatment	**n=90**
Nintedanib	55 (61%)
Pirfenidone	35 (39%)
Comorbidities	
Ischaemic heart disease	23 (26%)
Hypertension	18 (20%)
Gastroesophageal Reflux Disease	17 (19%)
Type 2 Diabetes Mellitus	14 (16%)
Osteoarthritis	9 (10%)
Hypothyroidism	7 (8%)
Hypercholesterolaemia	6 (7%)
Asthma	5 (6%)
Inflammatory bowel disease	3 (3%)
Other connective tissue disease	3 (3%)
Gout	3 (3%)
Chronic Kidney disease	2 (2%)
Obstructive sleep apnoea	1 (1%)
WHO BMI Classification	**n=46**
Underweight (<18.5)	0
Normal (18.5–24.99)	10 (22%)
Pre-obese (25–29.99)	17 (37%)
Obese Class 1 or 2 (30–39.99)	18 (39%)
Obese Class 3 (>40)	1 (2%)
Delta BMI	**n=43**
(change in BMI per month)	
Median (SD)	−0.05 (0.2)
Range	−0.41 to+0.63 per month
Delta FVC	**n=44**
(Change in FVC per month)	
Median (SD)	−0.3% (0.81%)
Range	−2.44% to+1.5%

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P148 IDIOPATHIC PULMONARY FIBROSIS: "LOST IN THE SYSTEM" IN THE NORTH WEST OF ENGLAND?

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Introduction Idiopathic Pulmonary Fibrosis (IPF) is a debilitating lung disease with average life expectancy of 3–5 years. IPF services in England, commissioned by NHS England, occur in a finite number of designated specialist centres. With the advent of antifibrotics early referral is paramount to impact disease pathogenesis. Inequalities in UK healthcare have been documented in lung disease. Our objective was to assess whether we received the expected number of referrals compared to the NICE predicted disease prevalence (0.0277%).[1]

Methods This is a single centre review of University Hospital of South Manchester (UHSM) British Thoracic Society (BTS) entries from 2013 to 2017. Patient's entry postcodes were mapped to individual clinical commissioning groups (CCG). IPF patients within each CCG were compared to the expected disease prevalence (0.0277%).

Results UHSM is the largest contributor to the BTS-IPF registry with 457 of the total 1119 patient record (41%). 451 patients from 35 English CCGs were represented. 6 patients were from outside England (Wales and Isle of Man). There are two specialist centres in the North West, Aintree and UHSM. 13 CCGs are located geographically closest to Aintree and 14 closest to UHSM with a further 8 CCGs located equidistant. Patients are referred to either specialist service at the discretion of the clinician and patient preference. The expected number of patients seen at UHSM according to IPF prevalence varied greatly in the 14 CCGs geographically closest with an average of 19 referrals per CCG (range 3–37) compared to the expected 51 referrals. CCGs varied in their referral rates with the top three CCGs Trafford (71%), Tameside and Glossop (65%) and Salford (54%) and the lowest referrals from Central (6%) and North Manchester (19%) (Table 1).

Abstract P148 Table 1 CCGs geographically situated next to UHSM. Data demonstrates patients expected according to disease prevalance, actual number of referred and their according percentages

CCG	Patients Referred	% of total sample (n=451)	Total Population	IPF Prevalence	Patient % of IPF
Trafford	37	8	230,259	52	71
East Lancashire	27	6	369,202	84	32
Stockport	31	7	296,812	67	46
Bolton	33	7	295,168	67	49
Oldham	11	2	237,316	54	20
Tameside and Glossop	35	8	235,817	54	65
Heywood & Middleton	14	3	224,572	51	27
Rochdale	14	3	220,472	51	27
Bury	10	2	211,275	48	21
Central Manchester	3	1	209,605	48	6
North Manchester	8	2	187,547	43	19
Blackburn	14	3	169,187	38	36
South Manchester	17	4	166,928	38	45
Salford	9	2	73,986	17	54

Conclusions Equality of access to specialist treatments for IPF remains a challenge. There is wide variation in the number of referrals to our specialist centre per patient population. The reasons for this disparity could be lack of detection of IPF, physician or patient factors. This presents a continued challenge for IPF management.

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P149 DESCRIPTION OF A NATIONAL PULMONARY FIBROSIS COHORT IN SWEDEN

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Background Idiopathic pulmonary fibrosis (IPF) is a rare disease, and estimates of incidence and prevalence vary considerably by geographic region. There have been few studies of patient populations with IPF in Sweden and here we describe the first national cohort of patients with pulmonary fibrosis.

Methods A retrospective longitudinal study with linked datasets from Swedish population-based registers and electronic medical records from 2001–2017. Included patients had a registration of International Classification of Diseases, Tenth Revision (ICD-10) code J84.1, were aged ≥40 years and did not have a competing diagnosis after the initial J84.1 code; a diagnosis algorithm was used to refine the population for patients with IPF. This national cohort was based on linked patient-level data from national, population-based health registers.

Objectives To describe incidence of pulmonary fibrosis and clinical characteristics (comorbidities and concomitant medications) at diagnosis and at any time.

Results Cohort 1 included 17 244 patients with pulmonary fibrosis. Incidence of pulmonary fibrosis ranged from 10.4–15.4 cases per 1 00 000 per year between 2001 and 2015, with an incidence of 13.9 cases per 1 00 000 per year in 2015. Incidence increased with age and was higher in males. Patients had a mean (standard deviation [SD]) age of 74.6 (10.5) years at time of diagnosis and 62.5% were male. Clinical characteristics of these patients are shown in the table; patients had a mean (SD) Charlson comorbidity index of 1.4 (1.7).