Background: Idiopathic Pulmonary Fibrosis (IPF) is a debilitating lung disease with average life expectancy of 3-5 years. With the advent of antifibrotic therapies early detection and diagnosis in specialist IPF centres is paramount to impact disease pathogenesis. Manchester Foundation Trust (MFT) is a specialist interstitial lung disease service in the North West of England with a networked based approach aiming to facilitate early diagnosis and equal access to IPF therapies.

Aim: Investigate if a network-based approach to care impacts on earlier detection of IPF.

Methods: We are the largest contributor to the British Thoracic Society (BTS) IPF Registry. Following informed consent patient information is submitted onto a national platform. Symptom duration, forced vital capacity (FVC) and transfer factor (DLCO) at diagnosis were compared from 2014 to 2016. ANOVA and Pearson correlation coefficient analysis were conducted.

Results: Overall, there were 330 records across 2014 (n=107), 2015 (n=177) and 2016 (n=130). At diagnosis symptom duration of less than 12 months increased from 8% in 2014 to 32% in 2016. Conversely IPF patients with symptoms greater than 2 years decreased from 71% in 2014 to 52% in 2016. Percentage predicted mean FVC declined from 2.69 (80%) in 2014 to 2.38 (75%) in 2016, meanwhile the mean DLCO increased from 3.59 (41%) in 2014 to 4.0 (45%) in 2016 (p=0.0425). There was a negative correlation with FVC ($R^2=0.997$) and a positive correlation with DLCO percentages ($R^2=0.902$). In patients with symptoms less than 6 months the FVC increased from 2.16 (68%) in 2014 to 2.31 (46%) in 2016, meanwhile the DLCO increased from 3.05 (39%) to 7.34 (45%). Patients with symptoms >2 years saw a decline in FVC 2.74 (82%) in 2014 to 2.35 (73%) meanwhile DLCO increased from 3.62 (42%) to 4.37 (46%) (p<0.001).

Conclusions: Our hypothesis is that a network-based approach to IPF care would diagnose patients earlier over time. Here we demonstrate over a 3-year period that more patients had shorter duration of symptoms and higher DLCO at presentation denoting potential earlier diagnosis of IPF. The lower FVC over time is likely driven by the UK regulation restriction for prescribing antifibrotics.