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Understanding the Clinical Course Of Idiopathic Pulmonary Fibrosis

S17 THE BURDEN OF IDIOPATHIC PULMONARY FIBROSIS IN THE UNITED KINGDOM: A RETROSPECTIVE, MATCHED COHORT STUDY

[1]M Storm, [2]I Tran, [3]H Strongman, [2]J Fredriksson, [4]T Maher. *[1]IHS Life Sciences, Washington DC, USA; [2]Roche Products Ltd, Welwyn Garden City, UK; [3]Clinical Practice Research Datalink, London, UK; [4]Royal Brompton and Harefield NHS Foundation Trust, London, UK*

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Background Idiopathic pulmonary fibrosis (IPF) is a specific form of chronic, progressive fibrosing interstitial pneumonia which primarily affects older adults, for which very few treatments have existed. While attention has been paid to quantifying the rising incidence and prevalence of the disease, little has been done to quantify the impact of this disease on NHS resources and how this impact varies by setting.
Objective This study aims to identify health care utilisation patterns in the United Kingdom (UK) following IPF diagnosis.
Methods The Clinical Practice Research Datalink (CPRD) GOLD dataset for general practitioner office visits and the linked Hospital Episode Statistics (HES) datasets were analysed, covering the time period from January 1, 2000 to June 30, 2015. A matched cohort analysis was conducted, and frequency counts and regression analyses were used to quantify raw healthcare resource utilisation and understand the proportion of the utilisation that is attributable to IPF.
Results The results of this study indicate that IPF patients have significantly higher healthcare utilisation patterns than non-IPF patients. The regression results indicate that IPF leads to roughly 2.2 times as many GP visits, 8.7 times as many inpatient hospitalizations, and 2.4 times as many outpatient hospital visits per year (all p-values <0.0001), as well as increased referrals, prescriptions, and, in the post-diagnosis period, inpatient stay duration. Additionally, healthcare utilisation amongst these patients is dramatically higher in the year prior to IPF diagnosis, a pattern not witnessed in the matched cohort.
Conclusions IPF imposes a significant burden on the NHS despite its rare prevalence. IPF patients experience an across the board increase in healthcare utilisation, but the burden is particularly acute in the inpatient hospital setting. Additionally, the large increase in resource utilisation in the year prior to IPF diagnosis is evidence of the potential benefits to refining the diagnostic procedures.

S18 A WORKING DEFINITION AND NATURAL HISTORY OF 'MINIMAL' ILD

[1]R Ross Browne, [1]A Mathur, [2]A Marshal, [2]PA McFarlane, [2]GA Stewart, [2]J Sharkey, [2]G Ritchie, [2]M Jones, [2]JT Murchison, [2]N Hirani. *[1]University of Edinburgh, Edinburgh, UK; [2]Royal Infirmary of Edinburgh, Edinburgh, UK*

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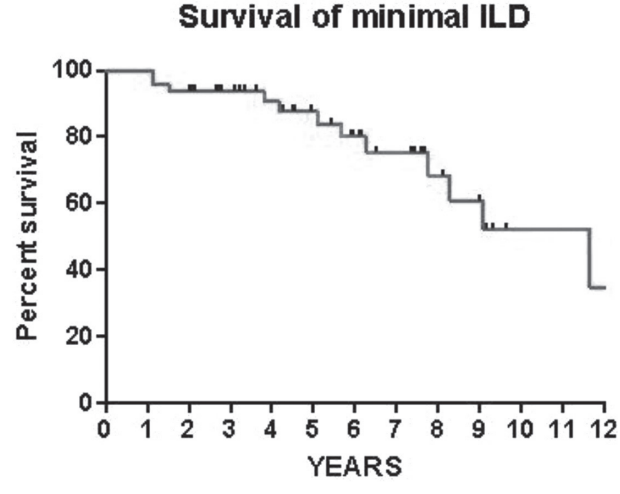
Background High resolution computed tomography (HRCT) scanning is able to detect abnormalities consistent with interstitial lung disease (ILD). However, if only a small proportion of lung is affected, radiologists variously report this as 'minimal', 'minor' or 'early' ILD. There is no definition of what constitutes 'minimal' ILD and the natural history of these patients is not known.
Aims To define 'minimal' ILD, test observer agreement with this definition and describe the characteristics and survival of these patients.
Hypothesis Minimal ILD can be defined by subjective quantification and has a benign course.
Methods Between 01.01.2002 and 31.12.2014 the Edinburgh Lung Fibrosis Database was prospectively populated with data for 1450 consecutively presenting patients with ILD. Of these, 56 were identified as presenting with 'minimal' disease according to HRCT. Three radiologists participated in a modified Delphi exercise and agreed on a definition of 'minimal' ILD. A sample (n = 38) of HRCT scans was provided to test inter- and intra-observer agreement according to this definition using Fleiss' Kappa statistics. Survival was assessed using Kaplan-Meier curves.
Results The Delphi exercise resulted in 'minimal' disease being defined as ILD involving <5% of the total lung volume and/or <10% of the lung peripheries. Using this definition, inter-observer and intra-observer agreement was moderate (kappa 0.42 and 0.58 respectively). Of the 56 subjects originally deemed as 'minimal' ILD, 48 were unanimously described as minimal disease by post-definition criteria. One subject was biopsied (consensus after biopsy, unclassifiable). Forty-seven subjects were not biopsied and none met ATS/ERS consensus criteria for diagnosing IPF. Most subjects had 'unclassifiable' disease, but the working diagnoses were; IPF or other fibrotic idiopathic interstitial pneumonia (IIP) (n = 34), IIP without fibrosis (n = 7) and connective-tissue disease associated ILD (n = 7). The median age was 69yrs, 56% were male and 23% had never smoked. The mean (SD) %pred lung function was; FEV_1 91.8% (19), VC 101% (18)



Abstract S18 Figure 1 Survival of minimal ILD