Introduction Idiopathic pulmonary fibrosis (IPF) is a chronic, progressive and irreversible disease that requires long-term management. The objective of this study was to assess the long-term safety of pirfenidone from a pooled analysis of 4 clinical studies.

Methods All patients who received pirfenidone (2403 mg/d) in the Phase 3 studies (ASCEND/CAPACITY) and/or the long-term extension study (RECAP) were included in this analysis. Safety outcomes were assessed during the period from the first dose until 28 days after the last dose of pirfenidone in either study. Analyses included the final data from the Phase 3 studies and RECAP (data cut, June 30, 2015).

Results The pooled population included 1216 patients with a cumulative total exposure of 3366 patient-exposure years. Median pirfenidone exposure was 25.9 months (range, 0–105 months), with a mean dose of 2306 mg/d. 99% of patients reported ≥ 1 treatment-emergent adverse event (TEAE). 57% of patients reported a serious TEAE (0.51 per patient-exposure year [PPEY]), the most common being IPF (21.5%) and pneumonia (9.3%; Table). TEAEs led to discontinuation in 45% of patients (0.17 PPEY), the most common being IPF (15.9%), rash (1.6%) and nausea (1.6%). Median survival on treatment (or ≤ 28 days after discontinuation of pirfenidone) was 82.6 months.

Conclusions The safety findings from this pooled analysis are consistent with the known safety profile of pirfenidone and the underlying disease of IPF.

Abstract P169 Table 1 Summary of TEAEs^a

Preferred Term	No. of Patients With an Event	Patient	Adjusted Rate ^{b,c}	
		Incidence (n = 1058)	No. of Events	Rate per Patient- Exposure Year
Most Frequent TEAEs (incidence in ≥20% of patients)				
Cough	477	39.2%	716	0.213
Nausea	471	38.7%	798	0.237
IPF	424	34.9%	669	0.199
Dyspnea	415	34.1%	573	0.170
Upper RTI	405	33.3%	789	0.234
Diarrhea	374	30.8%	657	0.195
Fatigue	359	29.5%	505	0.150
Rash	331	27.2%	540	0.160
Bronchitis	325	26.7%	624	0.185
Headache	281	23.1%	478	0.142
Nasopharyngitis	280	23.0%	536	0.159
Dizziness	276	22.7%	409	0.122
Dyspepsia	243	20.0%	306	0.091
Most Frequent Serious TEAEs (incidence in ≥5% of patients)				
IPF	262	21.5%	320	0.095
Pneumonia	113	9.3%	130	0.039
TEAEs With Outcome of Death (incidence in ≥1% of patients)				
Deaths	273	22.5%	273	0.081
IPF	148	12.2%	148	0.044
Respiratory failure	26	2.1%	26	0.008
Pneumonia	13	1.1%	13	0.004

IPF, idiopathic pulmonary fibrosis; RTI, respiratory tract infection; TEAE, treatment-emergent adverse event.

^a TEAEs are any events that occurred between the first dose and 28 days after the last dose.

^b 3366 total exposure years.

^c Adjusted rate = total number of events/total exposure years.

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SINGLE CENTRE EXPERIENCE ON IDIOPATHIC PULMONARY FIBROSIS PATIENT TOLERANCE OF PIRFENIDONE; IMPACT ON NURSE-LED ILD HELPLINE USAGE

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Introduction Idiopathic pulmonary fibrosis (IPF) is a progressively scarring lung disease with a poor prognosis. The anti-fibrotic agent Pirfenidone slows FVC decline and reduces mortality. Side-effect management is critical to help patients remain on treatment.

Objectives To examine tolerance to Pirfenidone in our specialist ILD centre: to identify the prevalence, nature and management of adverse effects, and the impact on the ILD nurse-led helpline.

Methods In this retrospective study, all patients with an ILD MDT diagnosis (ATS/ERS) of IPF treated with Pirfenidone for > 3 months were included. Data was derived from the patient records and nurse-led ILD helpline logs.

Results 100 patients were treated with Pirfenidone Feb 2012–July 2016. 16 patients were excluded (< 3 months' treatment (n = 7), death < 1 month (n = 2), other (n = 7), 84 remained in the study; Definite: Probable IPF 47:37, male: female 68:16, average age 73.7 (40–88).

72 (85.7%) experienced at least one adverse effect; appetite/weight loss (n = 39, 34.5%), nausea (n = 26, 23%), diarrhoea (n = 17, 15%), fatigue (n = 11, 9.7%), photosensitivity (n = 11, 9.7%), skin rash (n = 9, 8%). No patients required side-effect-related hospital admission.

Management: treatment pause (n = 36, 50%), dose reduction alone (n = 15, 20.8%), initial reduction and subsequent pause (n = 4, 5.6%). n = 17 (23.6%) with mild side-effects were managed with advice alone (dose unchanged).

Of those with dose reductions/pause (n = 55), 21 (38%) were gradually re-escalated to full dose, 1 (2%) continued on reduced dose. Pirfenidone was discontinued and offered symptom-based management in n = 17 (31%), (unable to switch to Nintedanib due to FVC $< 50\%$ (7), not preferred (3), bleeding risk (2), other (5)), while n = 16 (29%) were able to switch to Nintedanib.

Impact on the nurse-led helpline was assessed in n = 45 (unselected subset); $> 82\%$ used the helpline, often initiated due to side-effects; patients with deteriorating symptoms or end-stage disease engaged most frequently.

Conclusions In this real-life study, we found a higher prevalence of side effects than previously described. Nurse-led helpline use was often initiated by side effect concerns, but usage broadened into more holistic support as the nurse patient relationship developed. In response, the Oxford ILD Service has initiated a side-effect management protocol with more cautious (than standard) initial escalation and re-challenging regime.

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HEALTH INEQUALITY EXISTS IN PIRFENIDONE PRESCRIPTION FOR IDIOPATHIC PULMONARY FIBROSIS IN THE ENGLISH MIDLANDS ACCORDING TO PATIENT LOCATION

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Background Pirfenidone is approved in England by NICE for the treatment of Idiopathic Pulmonary Fibrosis (IPF) but its prescription is limited to certain specialised centres. We hypothesised that this may lead to health inequality in the access to the drug per head of population in an area of the Midlands

Methods 2 prescribing centres (PC), and 4 non-prescribing centres (NPC) referring into them were studied. They were the George Eliot Hospital (GEH) in Nuneaton and South Warwick FT (SWFT) in Warwick (both NPCs) referring to University Hospitals of Coventry & Warwickshire (UHCW) in Coventry, and Kettering General Hospital (KGH) and Northampton General Hospital (NGH), (both NPCs) referring to Glenfield Hospital, University Hospitals of Leicester (UHL).

The number of patients prescribed pirfenidone up to January 2016 was collected, and corrected per 100,000 head of population according to the patient postcode from 2011 census data. All patients were from the CV, LE or NN postcode areas. As data were not normally distributed, analysis was performed with non-parametric statistics using 'R', a statistics package. We collected the time and distance of travel to patients' local hospital, and to their PC.

Results There were a total of 64 postcode areas (PCAs) in the region. Travel times to local hospitals (either a PC or NPC according to area) were normally distributed with a median of 19 minutes (range 5–40). Travel time to relevant PC was bimodally distributed, with a median of 26 ½ minutes (range 5–64). This was significantly different ($p, 1 \times 10^{-7}$). There were no pirfenidone patients in 20 PCAs. Where patients' local hospital was a NPS there were significantly more pirfenidone-free PCAs (15/32) than where the local hospital was a PC (5/32), $p = 0.015$. Median number of pirfenidone patients per 100,000 population was significantly less (2.18) where the local hospital was a NPC than where the local hospital was a PC (4.76), $p = 0.019$. There were also significant differences across all 6 hospitals in the median prevalence of pirfenidone prescriptions ($p = 0.003$).

Conclusions Our data suggest there are significant health inequality in access to pirfenidone according to patients' location and whether their local hospital is a PC or not.

P172 DEMOGRAPHIC FACTORS AND TEMPORAL PATTERNS AFFECTING TREATMENT SUCCESS WITH PIRFENIDONE FOR PATIENTS WITH IDIOPATHIC PULMONARY FIBROSIS – A LARGE RETROSPECTIVE REVIEW

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Introduction/objectives Idiopathic Pulmonary Fibrosis is progressive with poor outcomes. Evidence from the CAPACITY and ASCEND trials suggests Pirfenidone slows disease progression (Noble *et al*, 2011; King *et al*, 2014). We reviewed all patients with more than a year since initiation to assess the proportion that discontinued Pirfenidone for adverse drug reactions (ADRs) or due to unsuccessful treatment ($>10\%$ /year %FVC decline or died on therapy), to assess temporal patterns of these stoppages and assess any demographic or disease extent predictors of success (age, sex, BMI, smoking history, %FVC prediction and FEV1).

Methods 155 patients have been referred to our consultant pharmacist for Pirfenidone initiation since August 2013, of which 65 started and have more than 1 year of data (i.e., we excluded

those starting post July 2015). We reviewed hospital databases and medical notes with subsequent data analysis using appropriate parametric statistical methods.

Results 42/65 (64.6%) stopped therapy overall divided between ADRs (24/42, 57.1%), FVC decline $>10\%$ /year (11/42, 26.2%), dying on treatment (5/42, 11.9%) and unclear (2/42, 4.8%). Table 1 demonstrates association between demographics and those that discontinued, suggesting there is one subgroup associated with treatment continuation (patient previously smoked $P \leq 0.001$). The temporal pattern of stopping treatment for ADRs vs those failing for clinical reasons (death on treatment or FVC decline) demonstrated a median cessation time of 40 days vs 226 respectively.

Conclusions Our data suggests two important findings. Firstly, patients' chances of continuing therapy is intriguingly affected positively by smoking history, causation for which remains unclear. Sex, age, BMI or disease extent does not seem to be associated with outcome success. Secondly, those that discontinued for ADRs did so much earlier than those that discontinued due to FVC decline or dying on treatment.

Potential implications for when prescribing Pirfenidone are that we cannot predict those at risk of discontinuation from their demographics. However, a smoking history intriguingly seems to be positively associated with continuation. Additionally, most patients affected by ADRs ceased treatment early, suggesting that if side effects are not noted post early follow up, they are unlikely to occur later. This information improves understanding of prescribing practice for Pirfenidone.

Abstract P172 Table 1 Demographic Parameters and association with therapy continuation

Demographic Parameter (mean or number)	Did not stop therapy	Stopped due to Death or FVC Decline	Stopped due to Adverse Drug Reaction	P (ANOVA or χ^2)
Age at treatment initiation	69.22	68.06	72.04	0.205
Sex (M:F)	20:3	13:3	17:7	0.385
BMI	24.2	23.2	23.1	0.631
Smoking Hx (Never: Ex)	6:17	12:4	18:6	<0.001
FVC% predicted	67.39	61.88	66.75	0.127
FEV1% predicted	69.05	65.25	72.09	0.115

P173 REDUCTION IN NON-ELECTIVE RESPIRATORY-RELATED HOSPITALIZATIONS IN PATIENTS TREATED WITH PIRFENIDONE: POOLED ANALYSES FROM THREE PHASE 3 TRIALS OF PIRFENIDONE IN IDIOPATHIC PULMONARY FIBROSIS

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Rationale Patients with idiopathic pulmonary fibrosis (IPF) are frequently hospitalised for a variety of reasons. Respiratory-related hospitalizations may occur because of acute exacerbations of IPF, respiratory tract infections, respiratory failure and other causes. Regardless of cause, respiratory-related hospitalizations have been linked to poor outcomes in patients with IPF. We