Abstract P283 Table 1 *Patient demographics and PEF/FVC correlation results

Demographics N = 119 ♂ = 37 ♀ = 82	PEF/FVC (mean ± SD)	PEF/FVC % Pred (mean ± SD)	Dependant Variable	Independent Variable	R (Pearson's)	R^2
ILD n = 96	2.96 (0.65) †‡	136.15 (31.42)	PEF/FVC	TLC (%)	−0.792	0.63
Obstructive n = 16	1.13 (0.30)*	59.90 (9.41)	PEF/FVC	RV (%)	−0.759	0.58
Normal n = 7	1.96 (0.26)	91.20 (9.18)	PEF/FVC	VA (%)	−0.665	0.44

† p <0.01 ILD vs COPD, ‡ <0.01 ILD vs Normal, * p <0.01 COPD vs Normal.

Conclusion Structural changes from TBX may cause stenting of the airways from fibrotic tissue, holding them open during forced expiration.[2] Our volume corrected PEF/FVC predicts reduced TLC and RV percent predicted, indicating reduced lung volumes and lung stiffness in patients with restrictive lung disease. The evidence of TBX on CT imaging supports the hypothesis that airways are held open during forced expiration, allowing increased efficiency of lung emptying in patients with a PEF/FVC >2.0. The magnitude of the ratio did not correlate with TBX severity but further work to determine a cut off ratio to predict future fibrosis is required. This index may be of use indicate a value beyond which TBX is likely to be present.

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P284 IDENTIFYING PATIENTS AT RISK OF ACUTE EXACERBATION OF IPF USING THE CPI SCORE

[1]E Fraser, [2]V St Noble, [2]R Benamore, [3]R Hoyles, [1]LP Ho. *[1]MRC Human Immunology Unit, Weatherall Institute of Molecular Medicine, University of Oxford and Oxford Interstitial Lung Disease Service., Oxford, UK; [2]Thoracic Imaging Department, Oxford University Hospital NHS Trust, Oxford, UK; [3]Oxford Interstitial Lung Disease Service, OUH NHS FoundationTrust, Oxford, UK*

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Introduction Disease course in IPF is punctuated by acute declines, often termed acute exacerbations of IPF (AEIPF) and portends to a mortality of 80% within 3 months. The cause of AEIPF is poorly understood; and there is currently no effective treatment. There is an urgent need to understand the causes and to characterise the parameters that identify patients at risk of AEIPF. Because lung function (DLCO and FVC) and CT imaging are the most accessible (potential) methods for identification of patients at risk of AEIPF, we question if these could be used to identify patient at risk of AEIPF. We explored the utility of the CPI[1] (composite physiological index) for this purpose.

Methods Patients with IPF diagnosed by clinico-pathologic-radiological criteria, according to the 2011 ATS/ERS/JRS/ALAT guidelines, with definite or probable diagnosis of IPF were recruited over a one year period, and divided into stable (n = 12) and AEIPF (n = 8) groups. AEIPF was defined as: 1) deterioration in dyspnoea over 30 days or less 2) new airspace infiltrates on HRCT (with or without evidence of infection) 3) exclusion of pulmonary emboli and heart failure. Lung function (FVC and DLCO) and CPI at 12 months before recruitment and rate of change of FVC within these 12 months were determined.

Results and discussion Patients with AE-IPF had a significantly higher CPI; (mean ± SD) – 62 ± 13 vs stable 45 ± 7; p = 0.001. In contrast, there was no significant difference in FVC levels between the two groups – 61 ± 4% predicted in AE-IPF group vs 72 ± 3% in stable; p = 0.07. CPI but not FVC or DLCO was worse 12 months prior to recruitment in the AEIPF group. Rate of loss in FVC in the year before AEIPF was not significantly different from those with stable disease

Conclusions Early findings suggest that in contrast to DLCO and FVC, high CPI is associated with occurrence of AEIPF within a year. Rate of FVC loss did not correlate with AEIPF in this small study. CPI could be a more sensitive predictor for AEIPF than FVC and DLCO but larger numbers and a prospective study will be required to test this concept.

REFERENCE

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Drugs and Devices in COPD

P285 THE 'REAL-LIFE' COPD PATIENT IN THE AGE OF LABA/LAMAS: AN EXPANSION OF THE DACCORD STUDY

[1]C Vogelmeier, [2]H Worth, [3]R Buhl, [4]CP Criée, [5]C Mailaender, [5]N Lossi, [6]P Kardos. *[1]Department of Medicine, Pulmonary and Critical Care Medicine, University Medical Centre Giessen and Marburg, Philipps University Marburg, Member of the German Centre for Lung Research (DZL), Marburg, Germany; [2]Facharztforum Fürth, Fürth, Germany; [3]Pulmonary Department, Mainz University Hospital, Mainz, Germany; [4]Department of Sleep and Respiratory Medicine, Evangelical Hospital Goettingen-Weende, Bovenden, Germany; [5]Novartis Pharma GmbH, Nürnberg, Germany; [6]Group Practice and Centre for Allergy, Respiratory and Sleep Medicine, Red Cross Maingau Hospital, Frankfurt, Germany*

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Introduction The prospective, non-interventional DACCORD study collects data from a representative cohort of COPD outpatients across Germany who either initiated or changed COPD maintenance medication prior to entry. Initially, DACCORD consisted of two treatment groups (Glycopyrronium-based therapy vs. any other COPD maintenance medication with the exception of Glycopyrronium). Following the approval of LABA/LAMA fixed-dose combinations (FDC) in 2013, DACCORD was extended to follow an additional cohort of patients receiving any LABA/LAMA FDC over a period of 2 years.

Methods 5223 patients with complete baseline data (3815 LAMA/LABA FDC vs. 1408 standard treatment group) were analysed here. Baseline exacerbations were evaluated 6 months prior to study entry and were annualised for GOLD 2011 categorization; COPD symptoms were evaluated using the COPD Assessment Test (CAT) and the mMRC questionnaire. Prior and concomitant COPD medication were captured and analysed by substance class.

Results Baseline characteristics are summarised in Table 1. Based on FEV1 assessment, approx. 75% of patients suffered from moderate to severe COPD. Less than a quarter of patients reported a history of exacerbations and only 6.7% experienced ≥2 exacerbations in the 6 months prior to study

Abstract P285 Table 1 Baseline characteristics

	LABA/LAMA-FDC-based therapy (N = 3815)	Standard therapy without LABA/LAMA FDC (N = 1408)	Total Population (N = 5223)
Male,%	59.4	57.3	58.9
Height (cm), mean	170.4	170.0	170.3
Weight (kg), mean	80.3	80.6	80.4
BMI (kg/m2), mean	27.6	27.8	27.7
Age (years), mean	66.6	66.6	66.6
Age groups, < 65	42.7%	42.8%	42.7%
65–75	35.8%	33.6%	35.2%
>75	21.5%	23.7%	22.1%
FEV1 predicted (litre), mean	1.7	1.7	1.7
Symptoms			
CAT total score, mean	18.9	18.6	18.8
mMRC total score, mean	1.7	1.7	1.7
Airflow limitation according to GOLD 2011[1],%			
Mild	19.1	23.4	20.3
Moderate	51.7	50.9	51.5
Severe	25.2	22.7	24.5
Very severe	4.0	3.1	3.7
COPD severity according to GOLD 2011[1],%			
GOLD A	9.3	10.1	9.5
GOLD B	45.2	47.6	45.8
GOLD C	3.4	2.8	3.2
GOLD D	42.2	39.6	41.5

CAT = COPD Assessment Test; mMRC = modified Medical Research Council dyspnoea scale

entry. Taking into account airflow limitation, COPD symptoms and exacerbation history, 41.5% of patients were categorised as GOLD D. Prior to study entry 1271 patients did not receive COPD maintenance treatment and ICS was withdrawn from 1307 patients. 86.9% of patients with an exacerbation history in the LABA/LAMA-FDC treatment group did not receive additional ICS while 58.5% of patients with an exacerbation history in the standard therapy arm received an ICS-based treatment regimen.

Conclusions The population recruited has a broad range of disease severity, with a baseline CAT and mMRC mean score suggesting a relatively high degree of symptoms. COPD progression and exacerbations will be recorded over the next 2 years and analysed in relation to the received maintenance medication, which will provide valuable real-life data on the use LABA/LAMA FDCs in daily practice in patients with or without an exacerbation history.

REFERENCE

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P286 COST-CONSEQUENCE OF FLUTICASONE FUROATE/VILANTEROL 100/25MCG FOR THE MANAGEMENT OF COPD IN THE SPANISH NHS: AN ANALYSIS BASED ON THE COPD SALFORD LUNG STUDY

A Huerta, Il Boucot, MT Driessen. *GlaxoSmithKline, Brentford, UK*

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Introduction The Salford Lung Study (SLS) is an open label prospective randomised controlled effectiveness trial. The study was conducted in the UK between 2012 and 2015 in a population intended to be representative of everyday clinical practice and was intended to provide relevant evidence to support healthcare decisions in the management of Chronic Obstructive Pulmonary Disease (COPD) for clinicians, providers and policy makers. SLS investigated the effectiveness and safety of initiating treatment with fluticasone furoate/vilanterol (FF/VI) 100/25 mcg compared with continuing with usual COPD maintenance treatment (usual care). Compared with usual care, FF/VI statistically significantly reduced the annual rate of moderate and severe exacerbations by 8.41% (NNT = 7) in the intention to treat (ITT) population (>1 exacerbation in the previous 3 y; n = 2799) and in patients with >1 exacerbation in the previous 1 y; n = 2269). The objective of the present analysis is to estimate the economic impact of these results when applied to a Spanish setting.

Methods An Excel based 1-year cost-consequence model was developed based on SLS results and from the Spanish National Health System (NHS) perspective. Mean annual rates of moderate/severe exacerbations were directly obtained from SLS (1.50 FF/VI and 1.64 usual care; ITT population). Serious adverse events were excluded from the analysis. Patients included in the analysis were diagnosed COPD patients >40 years old, being treated with a maintenance treatment and having a history of exacerbations (N = 232,730, estimated from Spanish prevalence data). Costs were estimated from Spanish public sources and encompassed annual retail drug costs (FF/VI: 627.26 €, usual care: 782.24 €) and COPD exacerbation management costs (344€: moderate event; 903 €: severe event).It was assumed that within one year the use of FF/VI would increase from 3% to 10%.

Results Substituting usual care with FF/VI is likely to be associated with reduced COPD medication and exacerbation management costs. Total annual savings of 3,236,647 € were obtained for this population.

Conclusion The decreased rate of exacerbations with FF/VI compared with usual care observed in SLS trial could be transferable, translating into potential healthcare savings for the Spanish NHS. SLS results may support informed healthcare decisions across different settings.

P287 PATIENT PREFERENCE FOR INHALATION DEVICES IN COPD: A COMPARISON OF THE BREEZHALER AND RESPIMAT DEVICES

[1]P O'Hagan, [2]J Dederichs, [3]V Boomi, [4]M Gasser, [4]S Walda. *[1]Healthcare Consultancy, Maidenhead, UK; [2]Novartis Pharma AG, Basel, Switzerland; [3]Novartis Healthcare, Hyderabad, India; [4]GfK Switzerland AG, Basel, Switzerland*

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Background and aims Difficulties and errors in the use of maintenance inhalation devices in COPD are common and can result in loss of control and an increased risk of exacerbations, hospitalisation and death. In this research, participants handled the