Abstract P183 Table 1

Table 1: Patient characteristics of 95 screened patients

	Eligible by enrolment criteria (FEV <sub>1</sub> /FVC>0.7, FEV <sub>1</sub> >80% predicted, without asthm			
	Eligible patients (n=55)	Not eligible (n=40)		
		Non-obstructive ratio (n=27)	Obstructive ratio & FEV <sub>1</sub> >80% (n=10)	History of asthma (n=3)
Age, years (mean[SD])	69 (10)	68(10)	72 (14)	68(1)
Gender, Male (patients [%])	42 (76)	16 (59)	5 (50)	2 (67)
History of smoking (patients [%])	55 (100)	27 (100)	10(100)	2 (67)
Pack-year history (mean[SD])	45 (37)	31 (25)	36 (16)	2(3)
Exacerbation frequency (mean[SD])	1.8 (2.3)	1.8(2.4)	1 (1.1)	1.7 (1.5)
Spirometry (mean[SD])				
FEV1	1.41 (0.46)	2.30 (0.52)	2.28 (0.55)	1.73 (0.72)
FVC	2.70 (0.84)	3.06 (0.70)	3.68 (0.78)	2.86 (0.82)
FEV <sub>1</sub> (% predicted)	54 (13)	86 (19)	89 (4)	60 (13)
FEV <sub>1</sub> /FVC ratio	0.52 (0.09)	0.75 (0.05)	0.62 (0.06)	0.60(0.10)

[5%] were enrolled in other research, and 37 [21%] were unsuitable for other reasons). 8 appointments were pending with screening data available for 95 patients (Table 1). 40 patients (42%) did not satisfy the spirometric inclusion criteria; 27 did not show airflow obstruction, 10 had mild COPD, and 3 had asthma. Approximately 25 contact letters and up to £260 were therefore required per eligible patient identified.

**Conclusion** A high proportion of patients on primary care databases fail to meet spirometric criteria for COPD trials and the screening failure rate via this recruitment pathway is much higher than previously reported. A large number of initial contacts are required for each patient identified. COPD patients are increasingly managed in primary care and these findings therefore have implications for planning future studies.

- 1. Albert, NEJM, 2011; 365(8):p689-98.
- 2. Jones, Respir Res, 2008; 9:p62.

## P184

### APPLYING THE GOLD 2011 CLASSIFICATION TO A REAL-WORLD COPD POPULATION IN GERMANY

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<sup>1</sup>C Vogelmeier, <sup>2</sup>M Small, <sup>2</sup>S Broomfield, <sup>3</sup>J Vestbo. <sup>1</sup>Marburg University Hospital, Marburg, Germany; <sup>2</sup>Adelphi Real World, Macclesfield, UK; <sup>3</sup>Respiratory Research Group, Manchester, UK

**Objectives** The GOLD 2011 Strategy now recommends assessment based on exacerbation history and symptoms in addition to airflow limitation. Our goal was to better understand this classification system by analysing the distribution of patients across the 4 groups, their treatment and comorbidities in a real-world population.

**Methods** GOLD 2011 criteria were applied to a German COPD population sampled from the Adelphi Respiratory Disease Specific Programme undertaken in 2011. Patients were recruited from consulting primary and specialist physicians. Chi-squared tests were performed.

**Results** 507 patients had a FEV<sub>1</sub> value and/or exacerbation history and COPD Assessment Test (CAT) score. 10.5% of patients scored 0–9 using CAT, resulting in an uneven distribution of patients in

groups A-D, 7.7, 49.9, 2.8 and 39.6% respectively. Using mMRC the distribution of patients in groups A-D was 35.1, 20.9, 19.1, and 24.9%. Inhaled corticosteroid (ICS) therapy was prescribed to 51.3, 57.9 and 42.7% of group A, B and D patients, respectively. Cardiovascular disease (51.3, 68.0, 75.2% [p=0.02]), diabetes (6.5, 17.8, 18.9% [p=0.20]) and obesity (0, 12.6, 16.8% [p=0.04]) increased across groups A, B and D respectively. Due to low numbers, group C was excluded from the comparison analysis.

**Conclusion** 2.8% of patients qualified as high risk/low symptoms suggesting this patient type is rare based on a CAT evaluation, using mMRC this proportion was 19.1%. An education gap exists regarding the appropriate use of ICS given the high proportion of treated low risk patients. CV and metabolic comorbidities are more prevalent with increasing risk/symptoms so a holistic approach may be necessary, especially for group D patients.



## QUANTIFICATION AND TREATMENT PATTERNS OF REAL-WORLD PATIENTS CLASSIFIED BY THE GOLD 2011 STRATEGY

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M Small, S Broomfield, V Higgins. Adelphi Real World, Macclesfield, UK

**Objectives** The Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2011 Strategy classifies COPD patients into 4 categories (A: low risk, less symptoms; B: low risk, more symptoms; C: high risk, less symptoms; D: high risk, more symptoms) based on risk (FEV $_1 \ge$ or <50% predicted *and/or* exacerbation history < or  $\ge$ 2 per year) and symptoms (COPD Assessment test [CAT] score < or  $\ge 10$  or modified Medical Research Council [mMRC] dyspnoea scale < or  $\ge 2$ ). We examined the proportion of patients in each category when evaluated by CAT or mMRC, and corresponding pharmacological treatment (CAT classification).

**Methods** GOLD 2011 criteria were applied to a real-world international COPD population sampled from the Adelphi Respiratory Disease Specific. Programme undertaken between June 2011 and September 2011. Physicians and patients completed matched questionnaires.

**Results** 2392 patients completed a questionnaire, of which 1508 with all 4 GOLD classification parameters were analyzed. The

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proportion of patients in categories A, B, C and D, respectively, when evaluated by CAT was 10, 49, 1 and 40%, and when evaluated by mMRC was 39, 20, 13 and 28%. By CAT evaluation in categories A, B, C, and D, patients were using a long-acting  $\beta_2$ -agonist (LABA) alone (8, 6, 0 and 1%), long-acting muscarinic antagonist (LAMA) alone (37, 25, 8 and 5%), inhaled corticosteroid plus LABA (ICS/LABA) alone (22, 18, 8 and 8%), and ICS/LABA plus LAMA only (11, 20, 46, 43%).

**Conclusion** CAT assessment increased the number of patients in the more symptomatic categories (B and D), compared with mMRC. Contrary to the GOLD 2011 recommendations, by CAT assessment, a high proportion of low-risk patients (A and B) were using ICS/LABA.

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PERSPECTIVES OF PATIENT AND PROFESSIONAL PARTICIPANTS ON TELEHEALTHCARE AND THE IMPACT ON SELF-MANAGEMENT: QUALITATIVE STUDY NESTED IN THE TELESCOT COPD TRIAL

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<sup>1</sup>H Pinnock, <sup>1</sup>P Fairbrother, <sup>2</sup>J Hanley, <sup>1</sup>L McCloughlan, <sup>1</sup>A Todd, <sup>1</sup>B McKinstry. <sup>1</sup>The University of Edinburgh, Edinburgh, UK; <sup>2</sup>Edinburgh Napier University, Edinburgh, UK

**Background** The TELESCOT randomised control trial, is investigating the impact of a telemonitoring service for COPD with the primary aim of reducing hospitalisation.

**Aim** The nested qualitative study explored the views of patients and professionals on models of telemetric service delivery and the impact on self-management.

**Method** Semi-structured interviews with patient and professional participants at different time points in the TELESCOT trial were transcribed, coded and analysed thematically. Interpretation was supported by multidisciplinary discussion.

**Results** 38 patients (47% male, mean age 67.5 years) and 32 health-care professionals provided 70 interviews. Both patients and professionals considered that home telemonitoring had the potential to reduce the risk of hospital admission.

**Patients** generally appreciated being 'watched over' by the telemonitoring, which gave them confidence to manage their own condition. They used tele-data to improving their understanding of COPD, determine their current state of health and influence decisions about their daily activities. Numerical data (e.g. oxygen saturations) were particularly valued. Changes in readings validated their decisions to adjust treatment or seek timely professional advice, and eased access to clinical care.

Professionals emphasised the potential role of telemetry in encouraging prompt compliance with medically defined behaviours and attitudes, though there was concern that 'fixation' on monitoring physiological parameters (especially oxygen saturation levels), promoted a medical model of the disease and might increase dependence on services in some patients.

The GPs and community nursing or physiotherapy teams who provided home telemonitoring support services emphasised the importance of 'knowing the patient' and 'knowing what's normal for the individual' in using their clinical skills to interpret incoming telemonitoring data.

**Conclusion** Enthusiasm for telemonitoring as a means of facilitating self-management and thereby reducing admissions is tempered by concerns about increased medicalisation and dependence on support services. Tele-monitoring provides data which can be used to support self-management decisions and act as a channel for seeking professional support. The patient-practitioner relationship, personalisation and continuity of care were prioritised as important elements in delivering clinical support for telemonitoring services by patients and professionals.

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#### TREATMENT OF STABLE COPD IN ALPHA 1 ANTITRYPSIN DEFICIENCY (AATD) PATIENTS USING THE 2011 GOLD TREATMENT ALGORITHM

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A Pillai, RA Stockley. University Hospitals, Birmingham, UK

**Background** Previous versions of the GOLD strategy algorithm recommended treatment based on FEV1 which is now recognised as a poor descriptor of disease impact. The revised 2011 GOLD document has introduced individualised assessment of symptoms and future risk for initial management of stable COPD. Questionnaires such as COPD Assessment Test (CAT) and modified Medical Research Council (mMRC) are suggested to assess symptoms and risk depends on spirometric impairment or exacerbation frequency. **Aim** To apply the current GOLD treatment algorithm to AATD patients and assess their current treatment against that recommended.

**Methods** 309 consecutive patients on the AATD registry (PiZZ) were grouped into the four categories (A, B, C, and D) as suggested by GOLD, on the basis of their CAT 10, 13 or mMRC scores and GOLD spirometric stage or Exacerbation frequency. We then documented the treatment combinations being used by the patients in the different groups.

**Results** Treatment for patients in the four groups differed widely from GOLD recommendations. Few patients in Group A(CAT10GOLD/MRCGOLD/CAT13GOLD:6%/2%/2% and CAT10EXAC/MRCEXAC/CAT13EXAC:6%/2%/3%) were on the GOLD recommended SABA/SAMA therapy. 40% were on none and 30% were on triple therapy. The majority of patients in group B and Group C (60% and 58% respectively) were on triple therapy with only 10% and 14% respectively being on the recommended regimen. Nearly 70% in group D were on recommended triple therapy with ICS, LABA and LAMA.

The proportion of patients in the groups A, B and C assessed by mMRC was significantly different using CAT 10 (p<0.02) but not using CAT 13 (p = not significant). The proportion of patients in group D was similar for all 3 symptom scores (p = not significant). Conclusions CAT 13 was most comparable to mMRC for patient distribution. Most of the AATD patients with low risk (low symptoms and high symptoms) were over treated with triple therapy. The majority in the high risk/high symptoms group were appropriately on triple therapy. It remains to be determined how this affects long term outcome.

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# CAT SCORE THRESHOLD FOR SYMPTOM/RISK ASSESSMENT IN ALPHA-1-ANTITRYPSIN DEFICIENCY (AATD) USING THE 2011 GOLD ALGORITHM

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A Pillai, RA Stockley. University Hospitals, Birmingham, UK

**Background** The revised COPD GOLD guidelines (2011) recommend that validated questionnaires like the CAT (COPD Assessment Test) or the modified MRC (Medical Research Council) breathlessness scale should be used to assess symptoms in COPD against "risk" as assessed by GOLD spirometric staging or exacerbation frequency. We have demonstrated that when either the MRC or CAT scores are used to determine symptoms, there is a significant difference in the proportion of patients being categorised into the risk categories which will affect risk assessment and may influence therapeutic choice.

**Aim** To determine the CAT threshold for risk assessment at which similar proportions of patients are categorised into the 4 risk categories.

**Methods** 309 consecutive patients on the AATD registry (PiZZ) were grouped into the four categories (A, B, C, and D) as suggested

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