little is known about how patients recognise an exacerbation. This study aims to identify the signs and symptoms that prompt patients to seek medical attention and also to identify which signs and symptoms health professionals expect patients to consider.

Methods A Factorial Survey was used to create clinical vignettes describing a variety of signs and symptoms of an exacerbation. A total of 30 patients with Chronic Obstructive Pulmonary Disease (mean %FEV_1 38.9) and 47 health professionals (14 GPs, 19 Specialist Nurses and 15 Respiratory Consultants/Registrars) completed a unique random set of vignettes. A total of 600 patient and 960 health professional vignettes were analysed using multiple regression analysis.

Results There are substantial variations in the symptoms which patients regard as important prompts for action, compared to health professional expectations. Patients rely mainly on the colour and purulence of sputum ($p<0.001$) as a cue for all possible actions, whereas health professionals expected patients to consider a variety of symptoms.

Conclusion Many symptoms health professionals regard as important are not used to by patients to guide their decisions. As there is increasing focus on patients self-managing their disease, health professionals should exploit the symptoms patients already rely on rather than trying to change their behaviour.

P211 EXACERBATION FREQUENCY AND MAINTENANCE TREATMENT OF COPD IN UK CLINICAL PRACTICE

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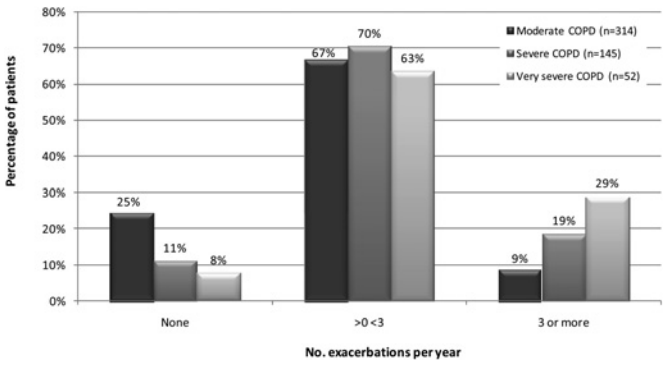
Introduction and Objectives COPD exacerbations are associated with high morbidity, mortality and costs. Prevention of exacerbations is recommended as a key goal of COPD management. Pharmacotherapy shown to reduce exacerbation frequency includes long acting beta agonists (LABA), long acting antimuscarinics (LAMA) and inhaled corticosteroids (ICS). There have been suggestions of a "frequent exacerbator" phenotype across severity.

Methods Retrospective observational study of 511 patients with COPD diagnosed during or before 2007. Three years' data per patient on exacerbation frequency, therapies and resource use were collected by trained researchers from routine medical records in 10 general practices in England. COPD severity was defined as: very severe (FEV_1 <30% predicted, n=52), severe (30–49%, n=145) and moderate (50–79%, n=314). Exacerbation frequency was annualised and stratified by: 0/year ("non-exacerbators"), >0<3/year and =3/year ("frequent exacerbators").

Results Mean (SD) annual exacerbation frequency: 1.1 (1.1) in moderate, 1.7 (1.6) in severe and 2.2 (2.0) in very severe COPD. 69 (14%) were frequent exacerbators and 97 (19%) were non-exacerbators. The proportion of frequent exacerbators increased with severity (9% moderate, 19% severe, 29% very severe). 14% did not receive any LABA, 25% any LAMA and 12% any ICS medication during the 3-year study period. "Triple therapy" with all three classes was received by only 67% of the frequent exacerbators. The percentage of patients with zero exacerbations/year fell as severity increased (25% moderate, 11% severe, 8% very severe). 61% received a LABA and/or LAMA with ICS (56% moderate, 75% severe and 100% very severe). 32% did not receive ICS during the study period (35% moderate, 25% severe and 0% very severe). The median number of primary care visits was 1.33 for patients with 0, 2.67 for >0<3 and 6.67 for =3 exacerbations/year.

Conclusions The "frequent exacerbator" phenotype occurs in patients of all levels of severity in community practice in the UK. Health resource use is high in frequent exacerbators. These patients frequently do not receive optimum therapy. The exacerbation history can potentially guide maintenance treatment of patients at all levels of COPD severity.



Abstract P211 Figure 1 Distribution of number of COPD exacerbations per year by severity of disease.

P212 THE DECAF SCORE: PREDICTING IN-HOSPITAL MORTALITY IN ACUTE EXACERBATIONS OF COPD

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Background Despite the often poor outcome of patients hospitalised with acute exacerbations of COPD (AECOPD), it is difficult accurately to identify those at high risk of mortality. To aid prognostication in AECOPD, we have developed a simple, easily memorable and effective tool, based on clinical data available shortly after admission.

Methods Consecutive patients hospitalised with AECOPD were recruited, with clinical and demographic data collected at admission. In-hospital mortality data were collected from hospital records. Variables were dichotomised and the strongest independent predictors of mortality were identified by logistic regression analysis. Tool performance was assessed using ROC curve analysis.

Results 920 patients were recruited: mean (SD) age was 73.1 (10.0) years, with 53.9% female; most had severe airflow obstruction (FEV_1 43.6 (17.2) % predicted) and were of normal weight (BMI 24.6 (6.3) kg/m^2). 32.5% of patients had coexistent consolidation and 199 (21.6%) received assisted ventilation during their hospital stay. 96 (10.4%) patients died in-hospital. In descending order of strength, the factors independently predicting mortality were: the extended MRC Dyspnoea Scale (eMRCD)[1]; coexistent radiographic consolidation; eosinopenia (<0.05×10^9/l); pH <7.3; atrial fibrillation; cough effectiveness; albumin <36 g/dl; age=80 years; cerebrovascular disease; and BMI <18.5 kg/m^2. The strongest five variables were selected to form the DECAF (Dyspnoea, Eosinopenia, Consolidation, Acidaemia, atrial Fibrillation) score (Abstract P212

Abstract P212 Table 1 DECAF score and in-hospital mortality

DECAF score	n	In-hospital mortality, %	Sensitivity*	Specificity*
0	201	0.5	1	0
1	291	2.1	0.99	0.24
2	226	8.4	0.93	0.59
3	125	24	0.73	0.84
4	57	45.6	0.42	0.96
5	20	70	0.15	0.99
6	0	NA	NA	NA

*For DECAF score ≥ that stated.