

utilisation. Our first aim was to develop a structured annual assessment for patients with advanced COPD: the ‘Comprehensive Respiratory Assessment (CRA)’ to systematically assess disease burden, co-morbidities and social care needs akin to the ‘Comprehensive Geriatric Assessment’. The second aim was to use the CRA in an out-patient setting to inform an individualised care plan. We report our first year experience of implementing an Advanced COPD Clinic with an annual CRA.

**Methods** A multi-disciplinary team developed the Comprehensive Respiratory Assessment (CRA) for patients with advanced COPD which was defined as an FEV<sub>1</sub> of <50% predicted with one of the following: MRC ≥ 4, Respiratory Failure, ≥2 hospital admissions with an acute exacerbation of COPD, current smoking history, and a low BMI or significant weight loss. A bespoke electronic patient record (the airways disease database [ADD]) was developed to support the CRA. The CRA was performed annually by an advanced COPD nurse and subsequently reviewed in an out-patient clinic by a respiratory physician supported by a multi-disciplinary team whereby an individualised care plan was agreed with the patient. Ethical approval was sought and written consent provided.

**Results** The Advanced COPD service and CRA was established in June 2013 in Leicester, UK. The CRA is categorised into four principal domains which are: (1) exercise and activity, (2) exacerbations, (3) co-morbidities and extra-pulmonary manifestations, and (4) prognostic indicators and end of life care needs. At one year 155 referrals have been made with 71 annual CRAs completed to date. The baseline data of the patient cohort are described in Table 1.

**Conclusion** The innovation of an advanced COPD service, with a multi-disciplinary team, supported by an annual Comprehensive Respiratory Assessment and bespoke electronic patient record is feasible and allows systematic assessment, development of individualised treatment plans, and further characterisation of this cohort.

**Abstract P91 Table 1** Characteristics of an advanced COPD cohort

Baseline Characteristics	Mean (SD)
Age (years)	66 (9)
Gender (% male)	51%
MRC Grade (median and IQR)	4 (4–4)
FEV1 (% predicted)	32 (12)
Body Mass Index (kg/m <sup>2</sup> )	25.5 (7.7)
Current smokers (%)	25%
Pack years (years)	39 (17)
Living arrangements (% living alone)	31%
Oxygen use (% LTOT)	39%
Number of exacerbations in previous year (median and IQR)	4.5 (2.0–8.0)
Number of hospitalisations in previous year (median and IQR)	0.5 (0.0–1.0)
Incremental shuttle walk test (m)	128 (91)
Quadriceps strength (Kg)	19 (9)
CAT score	25 (7)
Chronic Respiratory Questionnaire (CRQ)	
CRQ dyspnoea	2.1 (0.7)
CRQ fatigue	2.9 (1.2)
CRQ emotion	3.7 (1.4)
CRQ mastery	3.7 (1.5)
HADS anxiety	9.5 (4.4)
HADS depression	8.1 (3.5)

MRC: Medical Research Council, FEV1: Forced Expiratory Volume in 1 sec, CAT: COPD Assessment Tool, CRQ: Chronic Respiratory Questionnaire, HADS: Hospital Anxiety and Depression Scale

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**IMPROVING DIAGNOSIS AND MANAGEMENT OF PATIENTS WITH COPD IN THE ACUTE MEDICAL ADMISSION UNIT: A “RIGHT CARE” APPROACH**

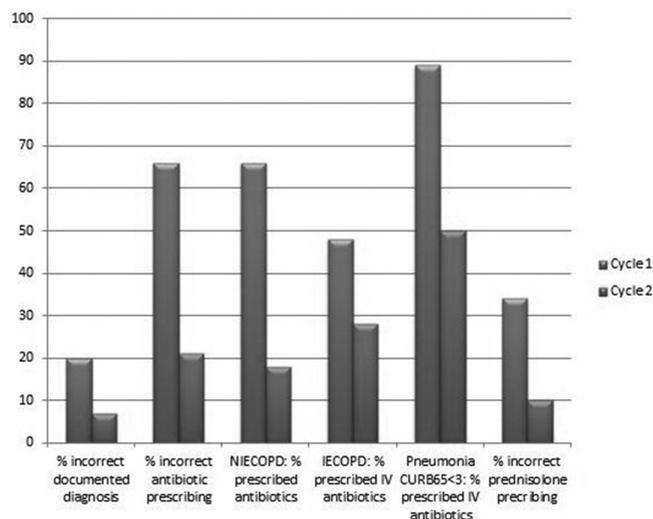
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**Introduction** COPD is the second most common cause of emergency admission and 5th cause of readmission to hospital. Appropriate identification and treatment is crucial to make every bed day count and reduce the burden of COPD. Characterising COPD exacerbations (ECOPD) and excluding differential diagnoses in acutely unwell co-morbid patients can be challenging. This study aimed to evaluate the accuracy of diagnoses/management of patients on the acute medical unit (AMU) in an inner London teaching hospital with 300 ECOPD admissions/yr, and to develop an improvement plan.

**Methods** Admission records for COPD patients admitted acutely with increased shortness of breath, cough and/or wheeze over 6 weeks (Jan/Feb 2014) were reviewed. Diagnostic criteria and treatment were compared to national standards. 21 AMU junior staff completed a COPD knowledge questionnaire. An ECOPD pathway was developed, highlighting diagnostic and treatment differences between infective (IECOPD), non-infective COPD exacerbations (NIECOPD) and community acquired pneumonia (CAP), supported by electronic prescribing order sets. An online learning module was developed to support junior doctors.

**Results** 44 COPD patients (26M, 18F) were admitted to AMU. 20% had an incorrect diagnosis. Of NIECOPD patients (20%): 66% received antibiotics; 11% did not receive prednisolone. Of IECOPD patients (47%): 65% received iv or incorrect oral antibiotics; 14% did not receive prednisolone. Of CAP patients (32%): in CURB <3 89% received iv antibiotics. 5 CAP patients were documented as IECOPD; 2 were undertreated. 2 IECOPD patients were diagnosed with CAP and over treated. Only 13/21 (62%) of AMU junior doctors understood the difference between NIECOPD, IECOPD and CAP. After the improvement plan, incorrect diagnosis fell from 20% to 7%. Of NIECOPD patients (28%): only 18% received antibiotic therapy; 100% received prednisolone. Of IECOPD patients (48%): 74% received correct antibiotics; 100% received prednisolone. Of



**Abstract P92 Figure 1** Accuracy of diagnoses and management of NIECOPD, IECOPD and CAP on AMU before and after a right care approach

CAP patients (23%); in CURB <3 iv antibiotic use reduced to 50%.

**Conclusion** COPD patients commonly present acutely with ECOPD, NIECOPD or CAP. This can cause diagnostic uncertainty in an AMU setting. A right care approach focusing on accurate diagnosis first time and guideline based therapy, supported by joint working, education and electronic prescribing can improve staff knowledge and patient management.

**P93 SUPPORTING PATIENT INVOLVEMENT IN SERVICE DEVELOPMENT: ELICITING PATIENT-CENTRED INFORMATION TO INFORM COMMISSIONING OF COPD SERVICES**

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**Introduction** Patient involvement in population level health care decisions often involves consultation rather than interactive decision-making. Lack of insight into appropriate methods is a barrier to patient involvement.

Working Together for Change (WTfC) is a person-centred process to inform service development. Information from person-centred reviews (PCRs) is themed in a two-day co-

production workshop. It is effective in social care and mental health but has not been applied in physical health. We tested its feasibility to improve the quality of person-centred information for COPD commissioners and of patient involvement.

**Methods** Forty COPD patients recruited from GP lists, secondary care and support groups participated in one-to-one PCRs. PCRs identified their priorities for what's working in their life regarding COPD, what's not working, what's important to the future.

These patients, health service professionals and third sector organisations involved in COPD support were then invited to attend the two one-day workshops. Patients' priorities were themed collaboratively. Root cause analysis of what was not working was followed by statements of what success would look like if root causes were addressed. Action plans were created.

Qualitative data from workshop observations and participant interviews were analysed using thematic analysis.

**Results** Service priorities included information, holistic care, access, dietary support, access to patient information for HCPs.

The improved quality of the person-centred information was evident in the ways in which professionals' understanding of patient needs was enhanced through close, informal interaction with patients and carers, e.g. witnessing difficulties such as simultaneously eating and breathing and other physical limitations that prevent patients following healthcare advice (Table 1).

Participation was positive for patients and professionals (Table 1) experiencing it as engaging and collaborative. Patients felt

**Abstract P93 Table 1** Table of Themes

**Enhanced understanding by professionals of patient needs and aspirations (in both breadth and depth)**

Sub-themes	Description
New insights	There was surprise among professionals at some of the issues highlighted that they were not previously aware of or of which they had not appreciated the importance. This included a greater understanding of why, due to practical or physical limitations, patients cannot always follow the medically advised course of action and mental health aspects of COPD.
Firsthand knowledge 'from the horse's mouth'	Through close interaction professionals could <i>hear</i> the issues that patients had and the changes they wanted made and could see the reality of their lives and the issues they dealt with (e.g. using oxygen, eating and breathing and moving around). The impact was emotional and humbling.
Appreciation of the range of patient experience	This was achieved through interaction with patients with a range of disease severity from mild to more severe and hearing of their differing challenges and experiences.
Hearing hard to reach voices	The process included the voices (either personally present or through PCRs) of patients who would not typically attend a focus group or consultation event.
Varied perspectives	Having a greater number of patients present elevated the patient input from token representation to a meaningful voice.

**Positive experience of participation for patients and professionals**

Sub-themes	Description
Collaboration, inclusivity and egalitarianism	Participants enjoyed working with each other in a pleasant, friendly atmosphere, with openness and sharing. This came through mutual learning amongst both patients and professionals, seeing people's reality and hearing a range of perspectives from a variety of participants. Patients learned about commissioning and professionals learned about the reality of patients' and carers' lives.
Mutual understanding	Active engagement helped by strong facilitation (not just sitting listening).
Engaging and stimulating	There was no pre-determined end point and anonymous voting gave a sense of freedom.
Freedom for ideas to emerge	Patients felt they were contributing to a process that could result in something influential.
Power to make a contribution	Patients felt that all information was precious and their issues were not "lost" or "dropped" even if they did not end up in the final outcomes.
Being heard	

**Problems with participation**

Sub-themes	Description
Confusion	In the early stages of the workshop it took a while for some participants to fully comprehend the process.
Dot voting	Some participants felt this encouraged herd mentality
Physical difficulties	Some patients experienced mobility difficulties in a building with long corridors

**Immediate benefits to patients from taking part**

Sub-themes	Description
Learning about support and resources and treatments	This came from material presented and discussed at the workshop, and from interactions with professionals. This could have a bigger impact than leaflets or literature.
Peer support	Reassurance from knowing that other people have similar issues and the opportunity to share these.