Abstract M1 Table 1

| Patient group		Medical n = 2239 (44,786 observations)	Surgical n = 4561 (35,605 observations)	Total n = 6800 (80, 391observations)
Prescription for oxygen target range	Target 94–98%	1804 (80.6%)	4117 (90.3%)	5921 (87.1%)
	Target 88–92%	387 (17.3%)	415 (9.1%)	802 (11.8%)
	Other target rage	37 (1.7%)	25 (0.5%)	62 (0.9%)
	No prescription	11 (0.5%)	4 (0.1%)	15 (0.2%)
Saturation of patients with target range 94–98% or 88–92%	In range or above range breathing air	90.9% of 41,960	90.4% of 35,605	90.6% of 77,565
	Below target	4.9%	2.3%	3.7%
	Above target on O_2	4.4%	7.4%	5.8%
Patients with target 94–98% using oxygen	In target range	78.2% of 5,556	51.8% of 4,725	66.1% of 10,281
	Below target	11.9%	5.6%	9.0%
	Above target on O_2	9.6%	42.3%	24.6%
Patients with target 88–92% using oxygen	In target range	47.5% of 2,767	25.8% of 877	42.1% 0f 3644
	Below target	4.9%	4.1%	4.7%
	Above target on O_2	47.5	70.2%	53.2%

Introduction Whilst current guidelines[1] state that patients must be clinically stable prior to commencing home oxygen, respiratory patients can be discharged with a supply of oxygen. Multiple errors are often found on the Home Oxygen Order Forms (HOOFs) for hospital discharges and equipment requirements are often subsequently changed, generating wasteful activity and costs. The aim was to establish whether a TPOC could be provided to specialist respiratory teams within hospitals to promote efficient and safe discharge for those patients requiring home oxygen.

Method Three hospitals with established Home Oxygen Assessment and Review Services (HOSAR) were issued with TPOCs. The Home Oxygen Supplier trained the HOSAR clinicians on use, and supplied written documentation on safety. The clinicians identified appropriate patients based on clinical assessments and issued them with a TPOC. A HOOF was then sent to the supplier with appropriate equipment for the patient's long term needs. On installation of this, the supplier removed the TPOC and another was issued to the hospital to enable an ongoing supply.

Results Of those discharged with a TPOC and a subsequent HOOF, only 5% (n = 6) of patients required a modality change or HOOF update within the following month, compared to 40% (n = 33296) of all other HOOFs received (Figure 1).

The largest group of patients issued with a TPOC on discharge were clinically coded as COPD (40%), followed by those coded as Palliative Care (28%).
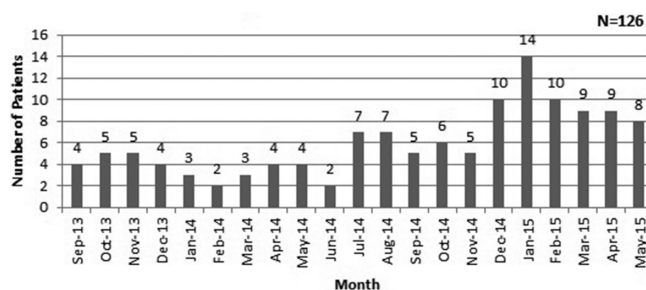
Abstract M2 Figure 1 Number of patients discharged from hospital with a TPOC

Conclusion The results demonstrate the practical uses of a TPOC for hospital discharge in clinically appropriate patients and a greater degree of control over the accuracy of ordering. A precise cost saving cannot be demonstrated as it is unclear how many bed days were saved, but it is clear that a reduction in wasteful activity by more accurate ordering would have reduced costs.

Discussion By using staff trained on equipment and accurately completing HOOFs, combined with equipment readily available, transition from hospital to home can be both clinically accurate, time efficient and cost effective.

REFERENCE
1 Hardinge M, Annandale J, Bourne S, et al. British Thoracic Society guidelines for home oxygen use in adults. Thorax 2015;**70**:i1–i43

M3 ANXIETY AND DEPRESSION IN PATIENTS WITH BREATHING PATTERN DISORDERS OR CHRONIC RESPIRATORY DISEASE

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Background Patients that have chronic respiratory disease (CRD) and breathing pattern disorders (BPD) have a higher prevalence of anxiety and depression than the general population. These patients have worse respiratory health outcomes and in addition, their psychological problems are often left undiagnosed and untreated. Little is known about how anxiety and depression varies between CRD and BPD.

Methods This prospective study involved screening patients attending secondary and tertiary respiratory clinics over an eight-week period. Patients were asked to complete the Hospital Anxiety and Depression Scale (HADS), Short Form-12 (SF-12) and St. George's Respiratory Questionnaire (SGRQ). Demographical data and spirometry were also collected. Our primary outcome measure was the difference in these scores between patients with CRD (asthma, bronchiectasis and chronic obstructive pulmonary disease) compared to BPD (vocal cord dysfunction and dysfunctional breathing).

Results 43 patients (21 with CRD and 22 with BPD) completed questionnaires; mean (SD) age 55 (17) yrs, 32 female. The overall prevalence of borderline anxiety was 17% and clinically significant anxiety 37%. The overall prevalence of borderline depression was 15% and clinically significant depression 29%. Of the patients with CRD, 29% had anxiety and 29% depression. In the BPD cohort, anxiety and depression were found in 45% and 30% of patients respectively. The difference between these groups was not statistically significant (anx: $P = 0.42$; dep $P = 0.19$). Independent predictors for anxiety and depression were higher SGRQ (anx: $P = 0.001$; dep: $P < 0.0001$), lower SF-12 Mental (anx: $P < 0.0001$; dep: $P < 0.0001$) and Physical (anx: $P = 0.042$; dep: $P = 0.0027$) Health Composite Scores, and lower $FEV_1\%$ predicted (anx: $P = 0.0043$; dep: $P = 0.016$).

Conclusions Anxiety and depression are present in a significant numbers of individuals in both CRD and BPD, with no difference between these groups, so efforts should be made to screen for psychological problems in patients with both CRD and BPD. Worse respiratory function and more symptoms are important contributing factors to patients' risk of anxiety and depression.

M4

ASSOCIATION OF DESCRIPTORS OF BREATHLESSNESS WITH DIAGNOSIS, SELF-REPORTED SEVERITY OF BREATHLESSNESS AND SELF-REPORTED DISTRESS DUE TO BREATHLESSNESS IN PATIENTS WITH ADVANCED CHRONIC OBSTRUCTIVE PULMONARY DISEASE OR CANCER

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Introduction and objectives Verbal descriptors are important in understanding patients' experience of breathlessness. The selection of breathlessness descriptors may depend on the severity of breathlessness.[1] Our objective was to examine the association between selection of the breathlessness descriptors devised by Simon *et al*. with diagnosis, self-reported severity of breathlessness and self-reported distress due to breathlessness.[2]

Methods We studied 132 patients grouped according to their diagnosis advanced COPD (n = 69) or advanced cancer (n = 63), self-reported severity of breathlessness: mild breathlessness (Numerical rating scale (NRS) ≤3, n = 53), moderate breathlessness (4≤NRS≥6, n = 59) or severe breathlessness (NRS ≥7, n = 20), and distress due to breathlessness: mild distress (NRS ≤3, n = 31), moderate distress (4≤NRS≥6, n = 44) or severe distress (NRS ≥7, n = 57). Patients selected three breathlessness descriptors. The relationship between descriptors selected and patient groups was evaluated by cluster analysis.

Results Cluster analysis identified six clusters of descriptors: 'breathing restrictions', 'enough air', 'out of breath', 'air hunger', 'effort' and 'chest tightness'. Different combinations of clusters were associated with each diagnostic group. The association of clusters with patient groups differed depending on their severity of breathlessness and their distress due to breathlessness. The 'air hunger' cluster was associated with patients with moderate or severe breathlessness, the 'chest tightness' cluster was associated with patients with mild breathlessness. The 'air hunger' cluster was associated with patients with severe distress due to breathlessness.

Conclusions The relationship between clusters and diagnosis is not robust enough to use the descriptors to identify the primary cause of breathlessness. Further work exploring how use of breathlessness descriptors reflects the severity of breathlessness and distress due to breathlessness could enable the descriptors to evaluate patient status and target interventions.

Abstract M4 Table 1 Association of clusters with diagnosis, with severity of breathlessness and distress due to breathlessness[1]

Patient group	Cluster 1 Breathing restrictions	Cluster 2 Enough air	Cluster 3 Out of breath	Cluster 4 Air hunger	Cluster 5 Effort	Cluster 6 Chest tightness
Diagnosis of advanced:						
Cancer	*	*	*	*	*	
COPD	*	*	*	*		
Severity of breathlessness (NRS):						
Mild (NRS ≤3)	*	*			*	*
Moderate (4≤NRS≥6)	*	*	*	*		
Severe (NRS≥7)	*	*	*	*		
Distress due to breathlessness (NRS):						
Mild (NRS≤3)		*			*	*
Moderate (4≤NRS≥6)	*	*			*	
Severe (NRS≥7)	*	*	*	*		

[1] * indicates that the cluster is associated with the patient group.

REFERENCES
1 Von Leupoldt A, Balewski S, Petersen S, *et al*. Verbal descriptors of dyspnea in patients with COPD at different intensity levels of dyspnea. *Chest* 2007;**132**:141–147
2 Simon PM, Schwartzstein RM, Weiss JW, *et al*. Distinguishable sensations of breathlessness induced in normal volunteers. *Am Rev Respir Dis*. 1989;**140**:1021–1027

M5

COMPARISON OF RESPIRATORY HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH INTRACTABLE BREATHLESSNESS DUE TO ADVANCED CANCER OR ADVANCED COPD

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Introduction and objectives Breathlessness is common in patients with advanced cancer and almost universal in advanced chronic obstructive pulmonary disease (COPD), but studies suggest their experiences of breathlessness vary. Our objective was to seek quantitative evidence of differences in respiratory health-related quality of life (HRQoL) between these groups using the Chronic Respiratory Questionnaire (CRQ) and to contribute to the debate on the validity of CRQ in patients with cancer.

Methods The CRQ-Original was completed within baseline interviews for a randomised control trial of a palliative intervention for breathlessness. Independent-Samples Mann-Whitney U Tests were performed to identify significant differences in median scores for the four CRQ domains (mastery, dyspnoea, emotional function, fatigue) in patients with advanced COPD (n = 73) or advanced cancer (n = 67.) The Minimally Clinically