Important Difference (MCID) of 0.5 was applied to determine clinical significance.

Results Patients with advanced COPD scored lower across all four CRQ domains. This was statistically significant for the dyspnoea, mastery, and emotional functioning scores ($p < 0.05$), and clinically significant for latter two, suggesting poorer respiratory HRQoL (Table 1).

Conclusions Patients with breathlessness due to advanced COPD had worse respiratory HRQoL than those due to advanced cancer. There are three potential explanations for this finding: (1) there may be a greater burden of breathlessness in COPD due to condition-longevity, (2) the burden of breathlessness may be less in cancer due to the episodic nature of the symptom in malignant conditions, and (3) it may reflect variance in palliative referral thresholds by disease group. Our results further suggest that greater access to palliative care is needed in advanced COPD and that formal psychometric testing of the CRQ may be warranted in cancer.

Abstract M5 Table 1 CRQ-Original scores by diagnostic group with associated p values

CRQ Domain	Advanced Diagnostic Group	Median	75^{th}-25^{th} Percentiles	Mean	Standard deviation	P value from Independent-Samples Mann-Whitney U Test
Mastery	COPD	3.75	4.75–2.75	3.81	1.28	0.001*
	Cancer	4.50	5.50–1.75	4.52	1.22	
Dyspnoea	COPD	3.00	3.60–2.40	3.02	0.93	0.038*
	Cancer	3.50	4.00–2.60	3.41	0.98	
Fatigue	COPD	2.88	3.75–2.00	2.97	1.13	0.126
	Cancer	3.25	4.19–2.25	3.29	1.20	
Emotional	COPD	3.86	4.33–3.11	3.84	1.13	0.004*
Function	Cancer	4.50	5.14–3.57	4.35	1.06	

*$p < 0.05$.

M6 CAN CLINICAL PSYCHOLOGY INPUT IMPROVE CARE QUALITY AND REDUCE ADMISSIONS AMONG PATIENTS WITH RESPIRATORY DISEASE?

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Introduction and objectives Health outcomes for patients with respiratory conditions can be significantly affected by their psychological wellbeing; those experiencing psychological difficulties are less able to manage symptoms, have a poorer quality of life, and have more frequent hospital admissions. National guidance recommends the need for the assessment and treatment of psychological difficulties secondary to respiratory disease, but implementation of this across services is inconsistent. Here, we report the findings of a nine-month trial integrating clinical psychology into a specialist respiratory department, which aimed to identify the psychological needs within this patient group, provide interventions to address these needs, and to evaluate the impact of this across a range of outcome domains.

Methods Standardised measures were used at two timepoints to assess levels of common psychological difficulties among inpatients. Psychological assessment and intervention was implemented as clinically appropriate within the context of the wider multidisciplinary team. This addressed issues including breathlessness-related panic and anxiety, low mood, health concerns, self-management of illness, coping strategies, and supporting discharge. Data on hospital admissions were used to evaluate changes in healthcare use following intervention. Feedback was collected from both patients and staff to review the experience and acceptability of psychology provision.

Results Results showed that the rates of clinically significant symptoms of depression, anxiety, and health anxiety among inpatients were 71%, 40%, and 21% respectively. They highlighted that integrating clinical psychology into the multidisciplinary team was received well by patients and staff, leading to improved patient experiences and clinical outcomes, and a greater focus on holistic care. Of the 69 patients receiving psychology input with at least one month follow-up data, 77% showed a reduction in their admission frequency, and those readmitted showed an average reduction in length of stay of 1.7 days. The associated cost savings to the wider NHS more than covered the costs of providing psychology input.

Conclusions In light of existing literature, national guidance, and the present findings, we highlight the need for those commissioning and managing respiratory services to consider the varied benefits of integrating psychological provision for a patient group with high levels of psychological need.

M7 LEADING FOR IMPROVEMENT – AN ESSENTIAL INGREDIENT IN QUALITY PATIENT CARE: A RESPIRATORY EXPERIENCE

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Background and objectives Many respiratory patients have deranged physiology and can deteriorate rapidly during acute episodes. Consequently, early decision-making is vital to improve outcomes and to ensure patient's wishes are respected.

We aim to improve the care of inpatients who acutely deteriorate through clinical leadership, as part of a quality improvement (QI) collaboration, by improving early decision-making and clinical response.

As a pilot project we retrospectively (January 2012–September 2014) analysed all 2222 calls from three respiratory wards (84 beds). Fewer events occurred at the weekend (9.4% per day) compared to weekdays (16.2% per day). More events occurred between0900–1700 (41.1%) compared to out of hours (58.9%). Decision-making was found to be poor with 12.2% patients having cardiopulmonary resuscitation (CPR) decisions in place.

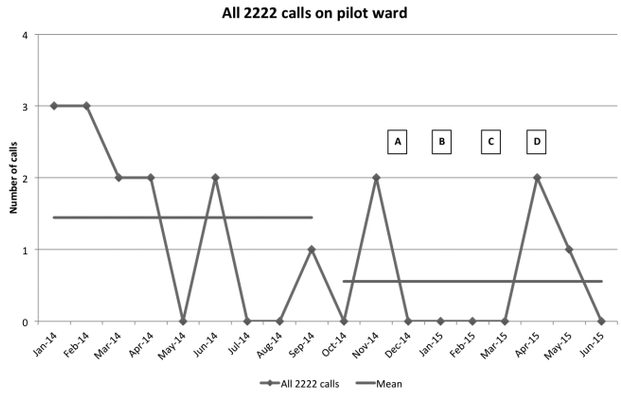
Methods Following initial data analysis, one ward participated in a QI project to identify areas for improvement and target these through small tests of change. The interventions implemented by the ward team included a staff survey, "deteriorating patient stamp", post-2222 call debriefing and "safety huddles". The effectiveness of these interventions was measured through analysis of on-going arrest calls and documentation of decision-making in case-notes.

Results Reduction in number of 2222 calls on pilot ward between pre-intervention and post-intervention time periods (mean 1.44 vs. 0.56) as shown in Figure 1.

Total 2222 calls per bed reduced for the pilot ward (63.6% reduction) compared to non-pilot wards (9.68% increase) during the pre and post-intervention phases. Similar results were shown for cardiac arrests alone (62.5% reduction compared to 26.7% increase). Decision-making was improved through the

intervention phase with 75% of inpatients having DNACPR decisions and 46% escalation plans documented. Safety huddles helped improve ward culture and spread lessons learnt from debriefing of the last 3 events.

Conclusion Early results show there has been a reduction in total 2222 calls in the pilot ward compared to the other wards. We believe this is through improved decision making and empowering frontline staff. This could be scaled-up in other wards to have greater impact on patient care.



Abstract M7 Figure 1 Total number of 2222 calls on pilot ward. Interventions indicated by lettering (A): Staff survey, (B): Introduction of "deteriorating patient stamp", (C): Debriefing following any arrests, (D): Introduction of "Safety huddle". Mean of pre-intervention and intervention data, 1.44 and 0.56 respectively

M8 PREVALENCE OF RESPIRATORY DISEASE IN SEVERE MORBID OBESITY

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Introduction It is well established that asthma and obstructive sleep apnoea (OSA) are significantly more prevalent in obese vs. non-obese populations. To date however there is limited data on whether this risk is increased with severity of obesity as most studies classify all patients >30 Kg/m^2 simply as 'obese'. In addition, many existing studies' obese cohorts have fairly low BMI scores compared to patients attending specialist medical obesity services. Our study aims to examine the prevalence of these diseases in higher BMI groups, compare the relative risk of increasing obesity on prevalence of respiratory disease and investigate whether there is a synergistic effect of multiple demographic factors and severity of obesity.

Methods Data was collected from a total of 367 (of whom 159 had a BMI recorded) patient records attending a tier 4 obesity clinic over an 8 month period. Patients were divided into three groups according to severity of obesity, BMI 30–40, 40–50 and >50 Kg/m^2. Index of multiple deprivation (IMD) scores (mapped to postcodes) were used as a proxy of socioeconomic status.

Results 43% of our total cohort had OSA, including 75.7% of those with a BMI >50 (Multivariate logistic regression OR 10.4 (95% CI 3.33 – 32.7, p < 0.001). In a chi-square analysis, this association was significant in both genders but stronger in males (Cramer's V 0.481 vs 0.305) and was significantly associated with a worse IMD score, being white and increasing age. 11.6% of the cohort were asthmatic however there was no difference in prevalence between the groups OR 0.175 (95% CI 0.019 – 1.631, p = 0.126). There was however a significant co-effect of being male and increasing BMI in a multi-layer chi-square analysis p = 0.044.

Conclusions Our study highlights a very high prevalence of major respiratory diseases as co-morbidities in a severely obese population. Early data suggests a synergistic effect of Caucasian ethnicity, male gender and IMD score with increasing BMI on the risk of developing OSA (and Asthma for male gender). This is in contrast with our initial findings for Diabetes and Cardiovascular disease where the association is with Asian ethnicity.

M9 LUNG HEALTH OF OPIATE USERS (LHOP): A PILOT STUDY TO ASSESS THE RESPIRATORY HEALTH OF OPIATE MISUSERS ATTENDING A COMMUNITY SUBSTANCE MISUSE CLINIC

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Introduction MDTs promote harm reduction in the care of opiate misusers (OMUs) through the prescription of opiate substitute medication and by encouraging smoking rather than injecting (to reduce the risk of blood-bourne virus transmission and venous thromboembolism). The average life expectancy for a male OMU is 41 years and whilst evidence suggests that the current cohort of older OMUs are dying prematurely from non-drug related deaths, all-cause mortality studies rarely report the prevalence of chronic health problems. A recent case-controlled study reported a higher prevalence of asthma and COPD in OMUs after adjusting for tobacco consumption and other factors.

The study objective was to investigate the prevalence and illness burden of respiratory problems (asthma, COPD, symptomatic but undiagnosed lung disease) in patients with a history of current and/or past opiate misuse.

Methods Opportunistic clinic-based participant recruitment. Resting spirometry and researcher administered socio-demographic, inhaled drug use and validated respiratory patient reported outcome questionnaires: 1) prior diagnosis of asthma (ACT; mini-ARQoL) or COPD (CCQ); 2) respiratory health screening if no prior diagnosis (LFQ).

Results There were 36 participants (26 male; 10 female; aged 24–53). Only 8 had a diagnosis (all asthmatics); 35/36 smoked tobacco; 34/36 smoked heroin; 33/36 smoked cocaine; and 31/36 smoked cannabis. All asthmatics had poor control (<13) on the ACT (median score 8) and frequent beta-agonist use (none used inhaled corticosteroids). Of the others, 22/28 scored ≤18 on LFQ suggesting high symptom burden and three of these had obstructive resting spirometry increasing the possibility of COPD.

Conclusions Chronic respiratory health in drug users is an under-researched area with few screening or high quality intervention studies evident. We identified a significant respiratory symptom burden within this OMU cohort. Most smoked tobacco, heroin, cocaine and cannabis. Asthmatics reported poor