Innovation in service design

M1 ASSERTIVE OUTREACH FOR PERSISTENT FREQUENT ATTENDERS WITH COPD IN THE COMMUNITY: REDUCING ATTENDANCE BY MEETING THEIR UNMET PSYCHOLOGICAL NEEDS

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Introduction and Objectives Co-morbid mental health problems in COPD can result in maladaptive and inappropriate utilisation of healthcare services (e.g., panic attacks cause attendance at A and E and acute hospital admission). Research evidence shows that COPD patients with co-morbid mental health problems have a higher rate of persistent A and E attendance and unplanned hospital admissions and on average incur an additional 80%–102% of medical treatment cost (Makek & Norris, 2008). Conventional models of mental health service provisions (e.g., Improving Access to Psychological Therapies (IAPT), secondary care mental health services) have proved ineffective in accessing and treating this subgroup of COPD patients. As such, there is a financial incentive for health services to develop more person-centred and cost-effective service models to address this issue. The current study investigates the effect of an Assertive Outreach Model of psychological interventions as applied to COPD patients with histories of frequent attendances to A and E and unplanned short-term hospital admissions. Attendance behaviours, depression and anxiety symptoms, and treatment costs were investigated.

Methods 19 COPD patients with persistently high attendance behaviours (i.e., three or more A and E attendances and/or two or more unplanned hospital admissions in a 12 month period) were identified from cross-referencing data from Electronic Patients Record (EPR) and the clinical knowledge of the community COPD team. They were then proactively engaged in an assertive outreach model within two weeks of identification, and offered four to 12 sessions of community-based psychological intervention during a 24 month period.

Results Compared to their 12 month pre- psychological intervention baseline, a total reduction of 40% (n=56) A and E attendances and 33% (n=32) short-term inpatient admissions was seen which amounts to approximately £30 000 of cost savings on treatment per year. 16% (n=6) and 21% (n=8) of patients reported a significant reduction in their depression and anxiety.

Conclusions An Assertive Outreach model of psychological intervention for COPD and co-morbid mental health problems providing responsive community-based treatment is highly effective in reducing attendance behaviours, achieving cost-savings, and by implication improving quality of life. However, it does not significantly improve patients' mental health symptoms which is likely due to the complex and multiple needs of this patient group.

M2 ADULT INTEGRATED RESPIRATORY CARE; STAFFING, POPULATIONS SERVED AND PATHWAYS OF CARE IN THE UK IN 2017

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Introduction and objectives NHS England has defined integrated care as services that are patient centred, coordinated and tailored to the needs and preferences of the individual, their carers and family. An integrated care service also is one that has moved away from episodic care to a more holistic approach to health. The aims of the British Thoracic Society (BTS) Models of Care Committee (MoCC) are to identify current integrated respiratory services, gain a better understanding of the models and components of integrated respiratory care and to share learning.

Methods An electronic survey was designed to determine workforce involvement, populations served and interventions offered by respiratory integrated services. This was emailed directly to all BTS members and via a link to Primary Care Respiratory Society-UK, Association of Chartered Physiotherapists in Respiratory Care and Association of Respiratory Nurse Specialists members.

Results 113 clinicians participated in the survey: 64 nurses, 29 consultants, 14 physiotherapists and 6 others. 59/113 (52%) reported working in an integrated service.

44 adult integrated respiratory care services were identified: Scotland (1), Northern Ireland (2), North of England (10), Midlands/East of England (12), London (10), South of England (9).

- 75% teams were consultant-led, 54% nurse-led and 27% physiotherapist-led
- All teams included nurses, 93% physiotherapists and 90% consultants
- 95% accepted patients with COPD, 72% bronchiectasis, 68% asthma, 61% interstitial lung disease
- A wide range of services were offered; see Table 1
- 65% described care co-ordination involving primary, secondary and community care
- 45% reported using a shared care record
- 50% offered a 7 day service.

Conclusion With at least 44 services across the UK in 2017, adult integrated respiratory care is already an established model of care, in particular, but not only for COPD in the UK. Leadership and delivery is largely by a respiratory nurse specialist, physiotherapist and consultant workforce. While a wide and varying range of services are offered, the majority focus on chronic disease management, pulmonary rehabilitation, oxygen therapy and advanced disease care. The Results from this survey will be used by the BTS MoCC to create a directory of integrated respiratory services as a resource for the respiratory community.

Abstract M2 Table 1

Service offered	Response percent
Chronic Disease Management	95%
Home visits	93%
Supported Discharge	88%
Telephone Review	86%
Admission Avoidance	81%
Multi-Disciplinary Team meetings	81%
Pulmonary Rehabilitation	88%
Physiotherapy	79%
Oxygen Assessment, Prescription and Review	79%
Breathlessness Support	75%
Anxiety Management	77%
Palliative Care	54%
End of Life Care	54%
Spirometry	88%
Case Finding	25%
Diagnostics	15%
Smoking Cessation	52%
Management of Co-morbidities	61%
Medicines Reviews	65%
Intravenous Medication Services	6%
Diet and Nutritional Support	36%
Occupational Therapy	15%
Speech and Language Therapy	6%
Multi-professional Clinics	52%
Virtual Clinics	34%
Education of Generalists	68%

M3 EFFECT OF A 'DEFER DISPENSING INHALED THERAPY' PROGRAMME IN AN ACUTE HOSPITAL TRUST

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Methods Our acute hospital's spend on inhaled therapy is high, and was rising year on year. It is recognised that 'stock-piling' of inhaled therapy occurs, and that patients often don't bring in their inhalers when admitted acutely. In October 2016 we drew up guidelines for our hospital pharmacists aiming to support them in safely deferring dispensing inhalers, allowing time for patients to arrange for inhalers to be brought in from home. We developed a flow chart, with posters displayed on the medical wards as reminders. In addition we encouraged pharmacists not to dispense a new type of inhaler unless the patient had been assessed as able to use it by the Respiratory Nurse Specialist. From April 2016 we also started actively changing patients from high cost to lower cost devices, matching the local CCG prescribing incentive scheme for 2016–2017.

Results Following the 'Defer Dispensing' programme there was a 28% reduction in spend on inhaled therapy and a 6.5% reduction in the number of items dispensed, (See Table). Using 2016–2017 figures the average cost of inhalers dispensed was £14.21, giving a saving of £10 757 related to reduced number of items dispensed. In the first 3 months of this year (2017–2018) there has been an additional 23% cost reduction compared to previous year's equivalent time period and a 5.2% reduction in number of items dispensed.

Conclusion There is scope to impact on respiratory pharmacy spend in acute trusts. This was achieved both by swapping to lower cost preparations, with ongoing benefit to the local health economy, plus a reduction in the number of items dispensed. We believe that there is potential for further savings by making dispensing of inhaled therapy a more robust process.

Abstract M3 Table 1

Financial year	Spend on inhaled therapy	Change from previous year	Number of items dispensed	Change from previous year
2014–2015	£1 91 460		11 233	
2015–2016	£1 98 624	+£7164	11 671	+438
2016–2017	£1 55 123	-£43 501	10 914	-757

M4 MEETING THE PSYCHOLOGICAL NEEDS OF COPD PATIENTS AND ENHANCING SELF-EFFICACY: INTEGRATING CLINICAL PSYCHOLOGY IN A COMMUNITY RESPIRATORY SERVICE

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Introduction and Objectives An average of 40% of Chronic Obstructive Pulmonary Disease (COPD) patients suffer from clinical depression and anxiety disorders, at least twice as much as reported by the general population. In COPD patients, comorbid mental health problems significantly predict more frequent symptom exacerbation, inpatient admissions, poorer functional status and quality of life due to reduced self-care. Typically up to 50% of treated COPD patients reported improvements of depression and anxiety symptoms after psychological therapy. However, conventional mental health services (e.g., Improving Access to Psychological Therapies services) have experienced challenges in engaging, assessing, and treating this patient group. The current study explores the clinical outcomes of a psychology service integrated into the existing COPD management frameworks and pulmonary rehabilitation programs in the London Borough of City and Hackney; in particular its impact on patients' access to psychological therapy, changes in mental health symptoms, quality of life and patient experiences of COPD.

Methods Self-reported experience of mental health symptoms was measured by the Hospital Anxiety and Depression Scale (HADS). Changes in patient experiences' including their perceived control and adjustment pre- and post-psychological interventions was measured by the COPD Patients-reported Experience Measure (COPD-PREM9).

Results In the 12 months between April 2016 and March 2017, the integrated psychology service received referral for 122 and offered interventions for 108 COPD patients, a significant improvement from that reported by the local IAPT service. 52 out of 108 patients who completed treatment required home-based psychological interventions due to their physical needs and were unsuitable for IAPT services. 44% reported a significant improvement in their symptoms of

anxiety and 38% with depression, comparable to the average recovery rate (41.6%) of physically healthy patients in London IAPT services during the same period. Overall 80% of patients showed significant improvement in their experience of their COPD, including their perceived control and adjustment to the condition.

Conclusions An integrated clinical psychology service offers significant advantage to traditional mental health services in improving service access, symptoms reduction, and improvement in self-reported quality of life of COPD patients.

M5 VIRTUAL CLINICS FOR CHRONIC LUNG DISEASE-COMPARISON AND LEARNING FROM PATIENT GROUPS IN PRIMARY CARE & INTEGRATED RESPIRATORY CARE SERVICES

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Introduction and Aims The virtual clinic (VC) was designed to identify and review patients with COPD diagnosis and/or FEV1 $\geq$ 50% predicted and/or on high dose inhaled corticosteroids (ICS) to recommend interventions to optimise care. Our study piloted VCs across 2 patient groups in primary care (PC) and under the care of our local integrated respiratory care service (IRCS). The aims were to identify patients who would benefit from national guideline based interventions such as modification of inhaler therapies, pulmonary rehabilitation (PR) and/or additional specialist advice.

Results VCs were undertaken in six PC health centres with GP and/or practice nurse and for IRCS group respectively. In total 161 patients were reviewed (PC group 94/161 (68%) and IRCS 67/161). Mean age 63 years (range 38–96), male 67/161 (42%), mean% predicted FEV1 51% (range 11–117). Overall 98/161 (60%) had potential change in inhaler therapy identified, PC 55/94 (59%) and IRCS 43/67 (64%) respectively ($p=0.47$ NS). 40/161 (25%) had recommendation to stop or wean ICS (PC 28/94 (30%) and IRCS 12/67 (18%, $p=0.08$ NS). 47/161 (29%) recommended referral for PR (PC 38/94 (40%) vs IRCS 9/67 (13%), $p<0.01$). For the PC group 22/94 (23%) were referred to IRCS and 3/94 (4%) were removed from COPD register. 8/161 (5%) were identified as potentially requiring HRCT investigation, 7/94 (7%) in the PC group.

Conclusion Virtual Clinics as part of an Integrated Respiratory Care Service can generate important treatment optimisations including inhaler modification in nearly two thirds (trial of ICS cessation in 25%) and PR referral in one third of reviews (significantly in the PC group). VCs confer patient benefit, support medicines management, PC training and education (including quality assurance) and effective and efficient use of specialist time.

M6 BREATHLESSNESS RAPID EVALUATION, ASSESSMENT, TREATMENT AND HEALTH EDUCATION (BREATHE); A NOVEL APPROACH TO BREATHLESSNESS IN STOCKPORT

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Background As part of a collaborative 100 day rapid testing programme with NHS England and Stockport Together, we aimed to improve the way patients with breathlessness are assessed, diagnosed and treated. Between June 2015 and June 2016 5.2% and 9.1% of cardiology and respiratory patients seen at Stockport NHS Foundation Trust respectively were subsequently referred to the other specialty causing delays in diagnosis and multiple clinic attendances. Breathlessness is a common reason for unscheduled presentation to ED and primary care.

Aims To provide a one stop multidisciplinary clinic to step down 75% patients presenting with breathlessness in 2 visits or less to primary care or appropriate specialist community teams, with clear diagnoses and patient led management plans.

Methods A clinic consisting of a cardiologist, respiratory physician, cardiac and respiratory physiologists and a member of The Prevention Alliance (TPA) was set up initially in the community and then in Stepping Hill Hospital. Primary care referrals on existing outpatient waiting lists were used and a GP referral template was also created. In a single day patients had CXR, ECG, ECHO and spirometry prior to seeing both consultants together. TPA supported the patient to explore and develop their own plan and signposted to appropriate 3rd sector or self-help organisations.

Results Between June 2016 and May 2017 62 patients were seen in the clinic (28/34 male/female; mean age 67.7 ± 1.5). To date, 43.5% patients have been stepped down and a further 19.4% are awaiting investigations and pending step down within 2 visits. The rest require further follow up with respiratory (22.6%), cardiology (9.6%) or both specialties (4.8%). Patient feedback was extremely positive; with a median rating of 1 (range 1–3) in overall helpfulness (1 being most helpful; 5 least helpful) and multiple comments in favour of the multi-speciality clinic.

Conclusion This multi-disciplinary approach to breathlessness has successfully led to a significant number of patients being stepped down from secondary care quickly and efficiently, within 2 visits and with appropriate management plans and education. This model will hopefully prevent these patients being referred to cardiology/respiratory services in the future, reduce attendances to ED and primary care and ensure patient led management.