P223a INCREASING THE QUALITY OF COPD CASE FINDING, DIAGNOSIS AND MANAGEMENT THROUGH A PRIMARY CARE FINANCIAL INCENTIVE SCHEME IN INNER LONDON

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Introduction and Objectives COPD is a major cause of mortality/morbidity in high smoking prevalence Primary Care Trusts (PCTs). Our PCT expected COPD prevalence (3.7%) is therefore high but recorded prevalence (2009/2010) was 1.4%, suggesting large numbers of undiagnosed patients. COPD, as the 2nd commonest cause of emergency admission locally, is one of the most costly diseases for secondary care. Local research (Bastin *et al*, 2010¹) shows that, while most patients admitted for the first time with acute exacerbations of COPD have severe disease, there is no prior diagnosis in ~1/3 cases. A COPD Local Enhanced Service (LES) was developed, to incentivise practices to proactively identify, diagnose and manage COPD patients using evidence-based interventions.

Methods All GP practices in were invited to participate in the COPD LES. Key elements included number of case finding spirometries performed in smokers/ex-smokers =35 y, and provision of interventions (pulmonary rehabilitation (PR) referral, self-management, oxygen auditing) with regular reviews/assessments. Primary outcomes were the number of new COPD diagnoses, a change in the gap between recorded and estimated COPD prevalence and number of non-elective hospital admissions. Data were extracted from the PCT GP dataset, QMAS (diagnosed prevalence), APHO COPD-prevalence model (expected prevalence) and Secondary Users Services (hospital admission data).

Results 37/38 (97%) GP practices signed up to provide the LES. Between April 2010 and May 2011, 1807 case finding spirometries were performed resulting in an estimated 477 new COPD diagnoses, significantly reducing the undiagnosed COPD prevalence by 0.2% ($p<0.05$). Compared to the same period in 2009, referrals to PR increased from 78 to 119 (52%) in the first 6/12. Audits of oxygen therapy identified ongoing unnecessary payment in 52 patients (47 died/moved, five patients no longer required oxygen). Twenty-nine patients on LTOT had not been reviewed and were subsequently referred. The LES impact on the rate of emergency admissions for COPD remains unclear.

Conclusions One year evaluation demonstrates the COPD-LES is an effective strategy to improve case finding and diagnosis of COPD, improve PR referrals and rationalise oxygen prescribing. Ongoing audit of COPD emergency admissions will determine whether the LES achieves its objective.

Abstract P223a Table 1 Changes between recorded and expected prevalence of COPD, persons aged 16+, 2009–2011 (QOF)

Time period	Recorded prevalence		Expected prevalence	Undiagnosed prevalence	
	Number	%		Number	%
2010/2011	2966	1.6%	3.7%	3750	2.1%
2009/2010	2651	1.4%		4240	2.3%
2008/2009	2579	1.4%		4160	2.3%

REFERENCE

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Models of care delivery

P224 THE IMPACT OF IMPLEMENTING A COLLABORATIVE ANTIMICROBIAL WARD ROUND MODEL WITHIN THE RESPIRATORY DIRECTORATE OF A LARGE UNIVERSITY TEACHING HOSPITAL

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Introduction Clostridium difficile Infection (CDI) remains a considerable source of healthcare associated infection. A Department of Health briefing recommends all Trusts establish an antimicrobial management team (AMT) to develop an antibiotic stewardship programme aiming to reduce CDI rates through appropriate antibiotic prescribing.¹ As a result, collaborative antimicrobial ward rounds were initiated in the Trust in May 2009.

Aim To study the impact of collaborative ward rounds on antibiotic prescribing within the Respiratory Directorate.

Method A weekly collaborative ward round model comprising of a Consultant microbiologist, Respiratory pharmacist and the Consultant Infection Control lead for the Respiratory Directorate was implemented across three acute respiratory wards (comprising 90 beds) in March 2011. Data were collected prospectively over a 6-week period between March and May 2011 using a standardised pro-forma. Patients prescribed antibiotics were identified using the Trust's electronic prescribing system. During ward rounds, case notes and microbiology data including resistance patterns were reviewed. Treatment plans were discussed with respective clinical teams to facilitate the learning of junior medical staff. Each prescription was reviewed and recorded as appropriate if compliant with the following parameters; indication recorded, correct route, correct dose, course length documented, compliance with hospital formulary or microbiology results.

Results A total of 156 antibiotic prescriptions were reviewed during the study period; 96 (62%) prescriptions were appropriate, 60 (38%) required intervention. Course lengths were documented for 29 (19%) prescriptions, 11 (7%) antibiotic prescriptions were discontinued, 9 (6%) antibiotic prescriptions were changed to more appropriate therapy and 6 (4%) intravenous antibiotics were switched to oral therapy and 5 (3%) antibiotic course lengths were extended. The defined daily doses (DDD) of antibiotics/1000 bed days over the two periods were 3544 in 2011 and 4335 in 2010 respectively (see Abstract P224 figure 1).

Abstract P224 Figure 1 Antibiotic consumption in DDD for the Respiratory Directorate between March and May 2011 compared with March and May 2010.

Conclusion Implementation of a collaborative AMT was associated with an 18% reduction in antibiotic consumption (DDD/1000 bed days) between the two periods within the respiratory directorate of a large urban university teaching hospital.

REFERENCE

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P225 THE POST PANDEMIC INFLUENZA EXPERIENCE IN A BUSY DISTRICT GENERAL HOSPITAL

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The 2009/2010 swine origin influenza virus (H1N1) pandemic created a national helpline, vaccination program and advertising campaign that cost many millions of pounds. There were a number of deaths in young pregnant people and those with existing respiratory morbidity. In contrast, in the post pandemic we have seen budgetary cuts, no advertising campaign and a reluctance to give vaccination to anyone but clearly defined groups. Our experience during the December 2010 holiday period suggests this was ill advised.

We analysed all admissions with H1N1 in December 2010–January 2011. In total we had 63 cases in a take that has a mean of 27 (SEM ± 1.97) patients per day. Over 70% of patients presented between 30th December and 2nd January. These patients were young (mean age 47 (SEM 1.81)), had an increased length of stay (mean LOS 6.2 days (SEM 1.54)) and were from low risk populations (35/63 (56%) had no co-morbidities or risk factors). All had a significant fever ($>38^{\circ}\text{C}$) and most had a successful recovery (95% discharged home). CXR was normal in the majority (78%), mean WCC was normal (8.83 (SEM 0.51)) but most were lymphopaenic (mean lymph 1.01 (SEM 0.09)). Only one had a positive sputum culture, (*Haemophilus influenzae*) and all blood cultures were negative. Six were admitted to ITU (9.6%, but 100% of ITU beds available) and 3 died (4.8%), all of whom had significant respiratory co-morbidity.

Our small DGH experienced a significant number of extra admissions over what is perhaps the busiest and least well staffed period the NHS has to deal with. These included a high number of young, previously well patients who had significant illness and lengths of stay. At one point 100% of critical care and level 2 beds were full of patients with H1N1. Vaccination would have prevented this crisis and at a reasonable cost and is as important in the post pandemic year as during a pandemic. It should be freely available to all on an annual basis.

P226 MANAGING SUSPECTED PULMONARY EMBOLISM IN AN AMBULATORY SETTING: THE LEICESTER EXPERIENCE

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Introduction Suspected Pulmonary Embolism (PE) is a significant cause of admission to hospital. The objective of this study was to establish the feasibility and safety of managing suspected and proven PE in an out-patient setting.

Methods Criteria for low risk patients with suspected PE suitable for treatment in an ambulatory setting were established based on modified Pulmonary Embolism Severity Score (PESI) criteria. Patients deemed low risk were referred to a nurse-led clinic. Clinical pre-test probability of PE was recorded for all patients and those with a low/intermediate probability had D-dimer testing. Patients with a high pre-test probability or D-dimer $\geq 0.5 \mu\text{g/ml}$ had radio-

logical investigations. Data were collected prospectively. Missing information was completed from pathology, imaging systems and case-note review.

Results 362 patients (Median age 46, Female 70%) with suspected PE were referred to the ambulatory clinic in 12 months from June 2010. 269 (74%) patients presented with chest pain. 145 patients (40%) had a negative D-dimer and were discharged. 210 patients (58%) had subsequent imaging in the form of 65 (31%) VQ scan, 138 (66%) CT scan, 7 (3%) both. Median time to imaging was 1 day (range 0–5 days). 34 patients were diagnosed with PE (9%). 11 patients (3%) were admitted, of which 5 (45%) were due to right heart strain. Likelihood of PE correlated strongly to clinical probability (low 2%, intermediate 14%, high 42%). One patient with a negative D-Dimer and intermediate clinical probability was diagnosed with PE. 294 (81%) patients were discharged with no follow-up, 28 (8%) patients were followed-up by consultant care. One patient admitted as they did not meet criteria for ambulatory care (tachycardia) had a cardiorespiratory arrest as an inpatient due to massive PE but was successfully resuscitated. To date three patients have (0.8%) died since attending the clinic, no death was related to PE. Savings to PCTs were estimated at £120 000 over 12 months.

Conclusion Selected patients with suspected and proven PE may be managed safely in an ambulatory PE clinic setting resulting in significant savings to the healthcare community.

P227 DEVELOPMENT OF A PRELIMINARY QUESTIONNAIRE FOR THE IDENTIFICATION OF VOCAL CORD DYSFUNCTION

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Background Vocal cord dysfunction (VCD) is a debilitating condition characterised by paroxysmal episodes of dyspnoea, typically resulting from abnormal adduction of the vocal cords during breathing. Diagnosis is complicated by its self-limiting nature and significant overlap in symptoms with other respiratory conditions such as asthma, and referral for further investigation therefore requires a high index of suspicion from non-specialist physicians. Our aim is to design a questionnaire with a high positive predictive value for VCD, which would hopefully lead to earlier identification and treatment and also reduce the levels of iatrogenic morbidity associated with misdiagnosis.

Methods 15 subjects with a confirmed diagnosis of VCD were recruited from the outpatient respiratory department. Semi-structured interviews in four focus groups were conducted to capture each sufferer's subjective experience. Concurrently, two focus groups were held with nine healthcare professionals with specialist and non-specialist interest to gather professional opinion on VCD symptoms. The collated data were used to generate a preliminary questionnaire that was tested for face validity in ten patients and healthcare professionals.

Results (1) Item generation: symptom profiles varied markedly, however certain characteristics did emerge with commonalities between most of the subjects or within a specific subset of individuals. These were grouped into the following themes—location, onset, sensations, breathing/voice changes, triggers, exacerbating factors and psychosocial impact. 17 items were generated for the preliminary questionnaire and expressed as positive or negative statements. (2) Face validity: general response was positive towards the comprehensibility of the statements and relevance to each subject. Based on user comments the number of items was reduced to twelve, all items were modified to positive statements to improve comprehensibility and a 5-point analogue scale will be used for scoring responses.

Conclusions A preliminary diagnostic tool has been generated and tested for face validity in patients with VCD. Initial feedback