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CLINICAL CHARACTERISTICS AND MANAGEMENT OF DUAL ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) DIAGNOSIS IN PRIMARY CARE; RESULTS FROM THE WELSH NATIONAL COPD PRIMARY CARE AUDIT

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Introduction Asthma and COPD are two common conditions that are diagnosed and managed in primary care. However, it is currently unknown whether patients with a dual diagnosis of asthma and COPD differ from patients with COPD alone, based on UK general practice records. We sought to evaluate the clinical characteristics and management in primary care of patients with a dual diagnosis of asthma and COPD, compared to those with COPD alone, using data from the first Welsh national COPD primary care audit.

Methods The Welsh national COPD primary care audit prospectively collected data of patients registered with COPD from 61% of GP practices in Wales covering January 2014–March 2015. This analysis compared 5682 patients with a current co-diagnosis of asthma to 42 301 patients with COPD alone.

Results There were no significant differences in age (71 ± 12 years for both), body mass index (27.54 ± 6.40 vs 27.42 ± 6.32 kg/m²), gender (48% vs 47% female), or smoking status (33.1% vs 33.8% current smoker) between patients with a co-diagnosis of asthma vs patients with COPD alone, respectively. Spirometry, exacerbation frequency and reported breathlessness were also similar [(FEV₁: 1.49 ± 0.64 vs 1.50 ± 0.63 litres, $p=0.65$), (exacerbations: 7.36 ± 8.41 vs 7.24 ± 8.73 , $p=0.36$), (MRC: 2.62 ± 1.02 vs 2.59 ± 1.01 , $p=0.10$)]. However, patients with a co-diagnosis of asthma compared to COPD alone, were less likely to receive influenza vaccination (80.2% vs 81.4%, $p<0.001$), pulmonary rehabilitation (15.9% vs 18.9%, $p<0.001$), 3–6 month review (1.6% vs 2.6%, $p<0.001$) or smoking cessation (67.2% vs 68.4%, $p=0.07$), but were more likely to receive pharmacology therapies: long acting beta agonist (LABA): 28.8% vs 25.8%, $p<0.001$, inhaled corticosteroids (ICS): 51.7% vs 48.2%, $p<0.001$, long acting muscarinic antagonist: 69% vs 65.8%, $p<0.001$, and combined LABA/ICS inhaler: 70.6% vs 68.5%, $p<0.001$.

Conclusions Patients with a dual diagnosis of asthma and COPD compared to patients with COPD alone, received less non-pharmacological COPD management in primary care, despite being on more inhaled medication and having similar levels of COPD severity. These are clinically important data from the Welsh national COPD primary care audit and suggest that quality improvement actions focused on COPD care

for patients with a dual diagnosis of asthma and COPD are required.

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RISK OF STROKE ASSOCIATED WITH ACUTE EXACERBATIONS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): A SELF-CONTROLLED CASE SERIES

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Introduction and Objectives Chronic Obstructive Pulmonary Disease (COPD) patients are at increased risk of cardiovascular disease. Previous studies have suggested that acute exacerbations of COPD (AECOPD) are associated with an increased risk of stroke in COPD patients. We aimed to characterise the size and duration of the increased risk of stroke following AECOPD as well as factors that modify the risk.

Methods Using data from the Clinical Practice Research Data-link linked with Hospital Episode Statistics, we conducted a self-controlled case series on COPD patients who had an AECOPD and a stroke. Fixed-effects conditional Poisson regression was utilised to estimate the incidence rate ratio (IRR) of stroke in the 91 day period following AECOPD compared with stable periods. The 91 day period was also segmented into shorter time periods, which were compared with stable periods in order to determine how the risk of stroke post-AECOPD changes over time. We stratified by various factors (including AECOPD severity, exacerbation frequency, cardiovascular disease history, and cardiovascular and respiratory drug prescription) to identify which modified this risk.

Results 3,466 COPD patients were identified as having at least one AECOPD and a first stroke during the study period. We observed an increased risk of stroke in the 91 day period following AECOPD compared with stable periods (IRR=1.47, 95% CI: 1.36–1.59), which peaked on days 4–7 (IRR=1.93, 95% CI: 1.57–2.37), not returning to baseline until after 91 days post-AECOPD. This increased risk was observed for ischaemic strokes only (IRR=1.51, 95% CI: 1.39–1.65). The relative risk of ischaemic stroke post-AECOPD was significantly higher for those with lower exacerbation frequency, and significantly lower for aspirin users and those with a previous angina diagnosis.

Conclusions There is a 1.47-fold increased risk of stroke in the 91 days following AECOPD which peaks on days 4–7 and does not return to baseline until after 91 days post-AECOPD. This may be used to inform physicians when their patients are at greatest risk of stroke following AECOPD and may provide the basis of future interventions such as the introduction of aspirin to reduce this risk and possibly reduce mortality in COPD patients.

Abstract P100 Table 1 Incidence rate ratios (IRR) of first stroke in risk periods after acute exacerbations of chronic obstructive pulmonary disease (AECOPD) relative to stable periods

Risk period	N outcome events (stroke) during risk period (91 days following AECOPD)	IRR (95% CI)
Total risk period (91 days)	1046	1.47 (1.36–1.59)
1–3 days	70	1.75 (1.38–2.23)
4–7 days	99	1.93 (1.57–2.37)
8–14 days	146	1.68 (1.41–1.99)
15–28 days	239	1.62 (1.41–1.86)
29–91 days	492	1.29 (1.16–1.42)

Table of Incidence rate ratios of first stroke in risk periods (the 91 day-period following each AECOPD) relative to stable periods (up to and including 15 days before, and 91 days after, each AECOPD), adjusted for age, current smoking status and season. AECOPD: acute exacerbation of Chronic Obstructive Pulmonary Disease; IRR: Incidence rate ratio; 95% CI: 95% Confidence Interval.

P101 REASONS FOR ACCIDENT AND EMERGENCY DEPARTMENT ATTENDANCE BY PEOPLE WITH HEART FAILURE OR CHRONIC OBSTRUCTIVE PULMONARY DISEASE: RECIPIENTS' AND PROVIDERS' PERSPECTIVES. AN EXPLORATORY STUDY

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Objective This study examined why patients with Chronic Obstructive Pulmonary Disease (COPD) or Heart Failure (HF) use Accident and Emergency (A and E) services and whether their perceived reasons are similar to or different from those of their family members or carers, or the hospital medical team.

Design A mixed method approach was undertaken; (i) semi-structured interviews with patients and their family members (or carer) and (ii) a self-developed survey with hospital health professionals.

Participants A purposive sample of 15 patients (9 COPD, 6 HF), six family members and carers (2 COPD, 4 HF) and 12 health professionals (5 doctors, 8 nurses) participated in the study.

Setting The research was in one large teaching hospital in South London, UK, covering a diverse ethnic population.

Results The patients' main reason for A and E admission was severe exacerbation of their symptoms and all three parties (patients, family members or carers, health professionals) agreed with this decision. Three key factors were highlighted in relation to A and E attendance: (i) patients' health seeking behaviour, (ii) perceptions about GP and A and E services by patients and (iii) patients' attitudes towards managing their own conditions.

Conclusions Improving patients' perceptions of GP services in the management of exacerbations of HF and COPD will be important to increase patients' trust in GP services so that patients will access primary care in a timely manner to prevent exacerbations of symptoms that require A and E admission. This may be achieved by developing a close collaboration between the patients, family members (carers) and health professionals over time.

*: Key decision maker to call 999 or send patient to A&E
**: COPD specific team
***: other than HF or COPD specific team- Community mental health team

Abstract P101 Figure 1 Patients' pathways to A and E.

Triggers and treatment of cough

P102 THE SENSATIONS PROVOKING COUGH: QUANTITATIVE STUDY

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Introduction The Sensation Provoking Cough (TOPIC) questionnaire, which is in the process of development, quantifies cough experiences, triggers and sensations. It currently consists of 49 descriptors, derived from face to face interview and focus groups.

Aim To evaluate if demographics, total St George's Respiratory Questionnaire (SGRQ) and Cough Severity Diary (CSD) correlate with total TOPIC score (TTS).

Methods Adult patients with chronic cough and various respiratory diseases were recruited and compared to patients with idiopathic/refractory chronic cough. A TOPIC draft questionnaire (49 items, each with a 0–5 Likert-type response, total score range 0–245), SGRQ and CSD were completed and repeated 5–7 days later, with a Global Rating of Change (GRC).

Results A total of 52 patients (49.2% females, mean age 53.2 +/-15.6) were recruited (n=17 idiopathic chronic cough, n=13 severe asthma, n=13 interstitial lung disease, n=9 cystic fibrosis). Total TOPIC score (TTS) mean 95.8 (+/-46.2). Patients with idiopathic cough had significantly higher TTS compared with cough in chronic lung disease (mean TTC=121.7 vs 83.3, p=0.004). Gender, age (r=-0.03) and FEV1% predicted (r=0.18) were not statistically significant