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UNDERSTANDING VARIATIONS IN OUTCOME IN COPD: EARLY RESULTS FROM AN OBSERVATIONAL STUDY USING ROUTINE CLINICAL DATA.
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Aim: To determine the proportions of patients diagnosed with COPD in UK General Practice populations who attended hospital because of respiratory problems (either Accident and Emergency department (A+E) attendance or hospital admission) and who died in a 2-year time period (01/01/11-31/12/12), and to estimate risk factors for poor outcomes.

Methods: A retrospective observational study, using individual patient-anonymised data held in the Hampshire Health Record (HHR, an electronic NHS database holding coded primary and secondary care routine clinical data for over one million patients). A prevalent cohort with a practice diagnosis of COPD as at 31/12/2010 were defined and described, with a 2 year follow-up of outcomes (hospital admissions, A+E attendances, mortality). Read codes (a coded classification of clinical terms) are used in primary care in the UK to record clinical information electronically. Selected codes from the Read directory were used to define the COPD cohort and to interrogate the primary care data in the HHR. Hospital discharge data were identified from the Secondary Uses Service (SUS) using ICD-10 (International Classification of Disease, version 10) codes and Accident and Emergency Clinical Codes were used to identify respiratory A+E attendances.

Results: We identified 21243 patients with COPD, mean age (SD) 71.5 (11.7) years, 55.0% male. FEV1 values were available in 19085 patients (89.8%) and % Predicted FEV1 in 10236 (48.2%); median (IQR) %predicted FEV1 was 58 (43–72)%. FEV1/FVC ratios were available in 17536 (82.5%); median (IQR) FEV1/FVC was 58.1 (47.0–69.0) %.
Smoking status was recorded in 21068 (99.2%): 37.8% ‘current smokers’, 51.0% ‘ex-smokers’, 10.4% ‘never-smokers’.
Over the two years, 2777 patients (13.1%) had one or more respiratory hospital admission; in addition, 1285 (6.0%) attended A+E with a respiratory complaint.
2446 (11.5%) patients died (12.2% of men, 10.7% of women, p<0.001). Comparing those who died with those who survived, mean (SD) age was greater (79.2 (9.8) versus 70.5 (11.6) years, p<0.001) and median (IQR) FEV1 was lower (1.04 (0.73-1.49) versus 1.39 (0.99-1.88) litres, p<0.001). Death occurred in 856 of 2777 who were hospitalized (30.8%), compared to 1590 of 18466 (8.6%) of those who were not (p<0.001).

Conclusion: In a broad, unselected UK primary care COPD population, we highlight the high percentage of patients still smoking (over 1/3) and the poor prognosis of COPD: 1 in 10 patients died over the 2 years, respiratory hospitalisation occurred in over 1 in 6, and almost 1 in 3 of those with an admission were dead at the end of the 2 year observation window. The prognosis following a respiratory admission in a COPD patient is worse than that from a myocardial infarct or most cancers.

Disclosure of Interest: None Declared

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