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Health Equity: Asthma & COPD from QOF & HES 2004/05

NWPHO Monthly - November 2006A

Dataset Facts

Quality & Outcomes Framework (QOF)

- Introduced in 2004 as part of the new GP contract
- GPs are required to maintain a register within practices of certain diseases
- GPs are paid based on their performance of managing patients on the disease registers

Hospital Episode Statistics (HES)

- Contains cleaned data on all hospital in-patient admissions
- Data extracted using:
  a) ICD-10 codes J45 – J46 (asthma) and J40 – J44 (COPD)
  b) Emergency admissions only
  c) Start of episode between 01/04/04 – 31/03/05

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Key Messages

- Across the North West the prevalence of asthma and COPD registered patients varies by PCT; COPD increases and asthma decreases slightly as deprivation increases.
- In general, the more deprived PCTs experience higher rates of emergency hospital admission for both COPD and (less so) asthma than the more affluent PCTs.
- Fewer QOF points being awarded to GPs in PCTs with higher rates of hospital admission for both asthma and COPD suggests that these PCTs may wish to examine the management of cases in primary care using health equity audit.

Introduction

This health equity monthly report analyses patterns of patient management in primary care alongside emergency hospital admission for asthma and coronary obstructive pulmonary disease (COPD) in the North West. In addition, patterns of recorded prevalence of both conditions are assessed by PCT using the GP QOF registers. Identified relationships between the management of patients in primary care, hospital admission and deprivation may indicate areas where increased effort is required to reduce the economic cost of treatment in NHS hospitals (secondary care).

Table 1: Numbers and rates of patients registered with GPs and emergency admissions hospital for asthma and COPD in the North West, 2004/05.

	Asthma	COPD
GP registered patients	439,409	132,884
QOF prevalence	6.1%	1.9%
Emergency hospital admission	11,438	19,285
Emergency admission rate (per 1,000 population)	1.59	2.69

Note: Prevalence = proportion of patients on GPs' registers diagnosed with and recorded as having the condition

Asthma

In the North West around 6.1% of patients registered with a GP are recorded as having asthma, over three times as many as those recorded as having COPD. Currently, patients with asthma are less likely than those recorded with COPD to be admitted to hospital as an emergency, which may be expected due to asthma management in primary care. The crude rate of emergency hospital admission for asthma is 1.59 per 1,000 population. However, as the two datasets are independent, we cannot determine if the patients who are admitted to hospital as an asthma emergency are recorded by their GP as having the condition. With QOF points being awarded to GPs based on management of asthma in primary care, analysis shows that generally a lower proportion of points were awarded to those PCTs with higher levels of hospital admission (Figure 1).

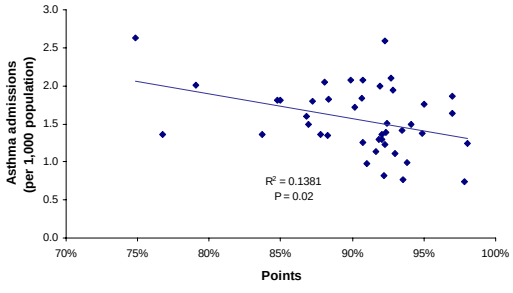

Figure 1: Relationship between asthma hospital admission and QOF points

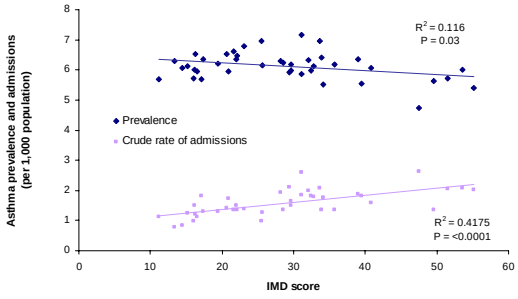

Figure 2: Relationship between asthma prevalence / hospital admission and IMD score

Figure 2 shows a very slight negative correlation between the Index of Multiple Deprivation (IMD) and prevalence of asthma, whilst hospital emergency admission increases slightly as PCT deprivation increases. It would therefore be prudent to monitor the disease more effectively in more deprived areas to reduce the (albeit low) number of emergency hospital admissions in the North West. Analysis of admissions by month shows that there is a peak around the start of the school year and that there are large numbers of patients who are boys aged under 14 years (Figures 3 and 4). However, in every five year ageband from the age of 15 upwards, more females are admitted than males. A limitation of the QOF data is that it does not provide age or sex breakdowns for comparative analysis between GP management of this disease and emergency hospital admission.

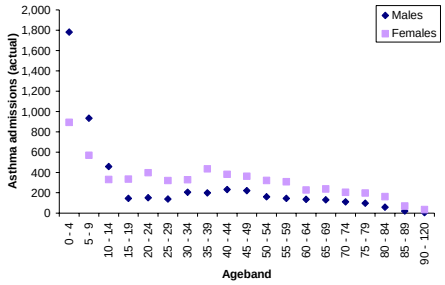

Figure 3: Asthma hospital admission by 5 year ageband

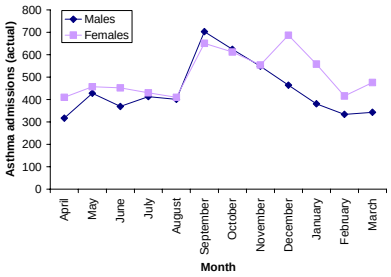

Figure 4: Asthma hospital admission by month

COPD

In the North West just 1.9% of GP patients are registered as having COPD, but the rate of emergency hospital admission for COPD is much higher than that for asthma, with 2.69 per 1,000 population being admitted. Figure 5 shows the relationship between the QOF points awarded for managing COPD in primary care and the rate of emergency hospital admission. Like asthma, fewer points were awarded to GPs in PCTs with higher rates of hospital admission for COPD. Health equity audits (HEAs) in these areas may help identify the resources and actions needed within primary care to demonstrably reduce these inequalities. Figure 6 shows that the rate of hospital admission for COPD increases as PCT deprivation increases. Unlike asthma, COPD prevalence also increases as deprivation increases. However, this is unsurprising as smoking, the major environmental determinant of COPD, is more prevalent in deprived areas. A breakdown of admissions by age shows that two-thirds of patients admitted as an emergency were between the ages of 65 and 84, whilst analysis of admissions by month shows a significant increase in emergency admissions during the winter months (Figure 8).

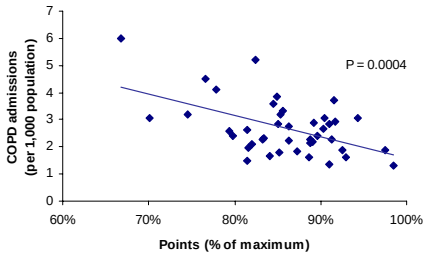

Figure 5: Relationship between COPD hospital admission and QOF points

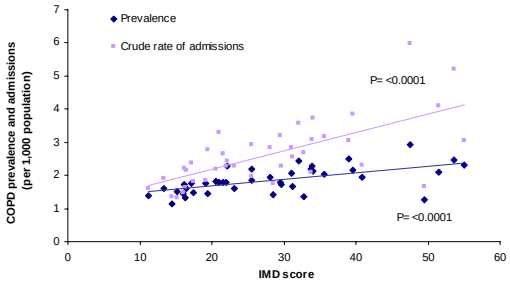

Figure 6: Relationship between COPD prevalence & hospital admission and IMD score

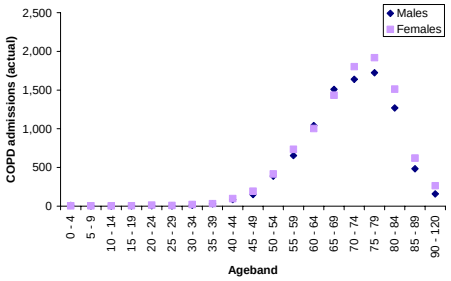

Figure 7: COPD hospital admission by 5 year ageband

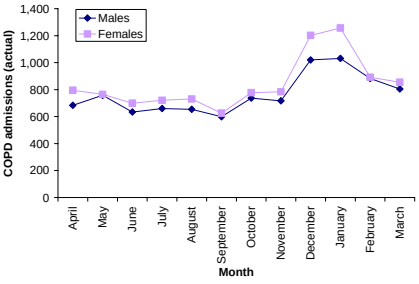

Figure 8: COPD hospital admission by month

*All data outlined in this report and further information can be found at: **www.nwpho.org.uk/monthly/Nov06a**