

Antibiotic prescribing trends and patterns among Out of Hours primary care providers, England, 2010-2014

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INTRODUCTION

- Antimicrobial resistance (AMR) is a global public health threat.
- In England, infections accounted for 7% of deaths in 2010
- Antimicrobial prescribing in Out-of-Hours services (OOH), which provide primary health care when General Practices (GPs) are closed, is poorly understood
- Aim: to describe prescribing trends and patterns among OOH providers in England

METHODS

- Estimated the number of CCGs with OOH data
 - Using the national prescribing database (ESPAUR)
- Compared OOH and GPs in terms of prescribing volume, seasonality and trends
 - Using linear regression
- compared the contribution of broad spectrum antibiotics to total prescribing in OOH and their respective CCGs
 - Using binomial regression

RESULTS

- Of 211 CCGs, 68% had OOH data

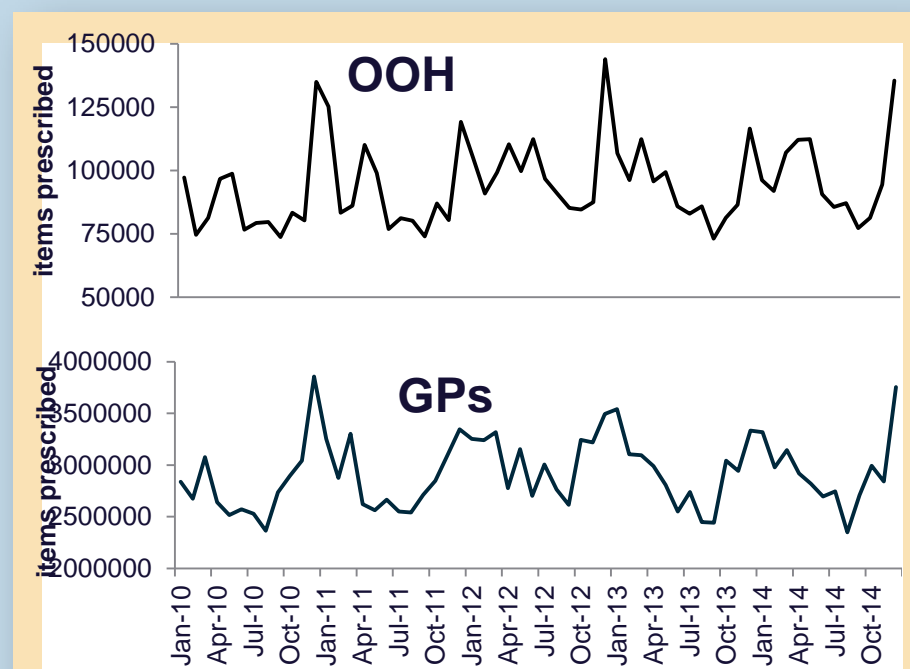


Figure 1. Seasonal variation in prescribing in OOH and GP

- OOH prescribing represented 3.2% of GP antibiotic prescription volume
- Similar seasonal pattern in both GP and OOH
 - prescribing peak in December. (Figure 1)
- Prescribing volume Trends stable over time in GPs and OOH
 - $p=0.37$

- Compared with GP, OOH consistently prescribes more Broad Spectrum Antibiotics
 - Year on year decrease in GP and OOH (table 1)
- OOH broad-spectrum antibiotics prescriptions correlated with CCG broad spectrum prescriptions (figure 2)

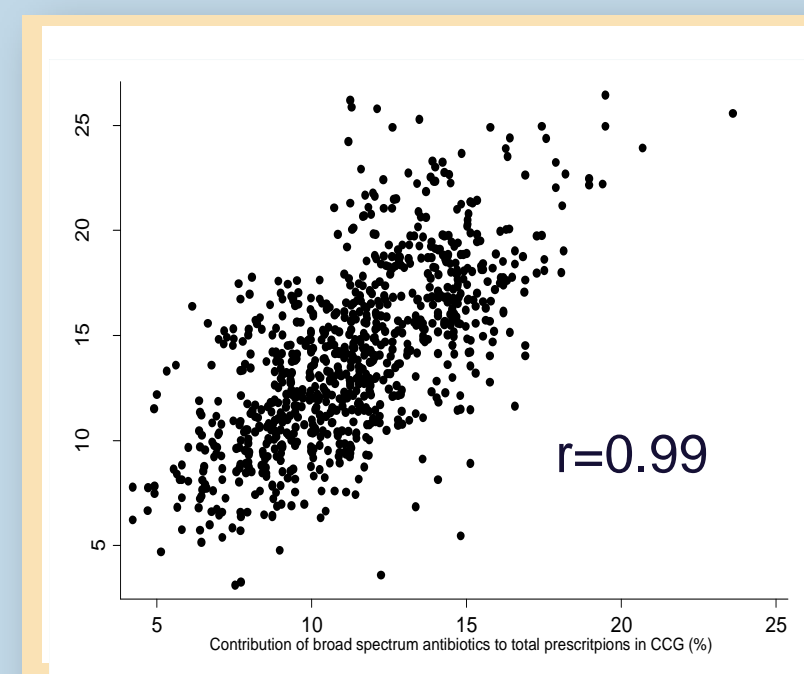


Figure 2. Contribution of broad spectrum antibiotics to prescribing volume among OOH providers and their CCGs, England, 2010-2014

Table 1. Proportion of broad spectrum antibiotics out of total antibiotic prescriptions, by year and type of practice, England, 2010-2014

	2010	2011	2012	2013	2014
GP	12.7	11.8	10.7	10.6	10.3
OOH	15.5	14.8	13.4	13.0	12.5

CONCLUSIONS

- Compared with GP, OOH prescribing was out of proportion to consultation volume but remained stable
- Seasonality similar to GP prescribing
- OOH prescribed more broad spectrum antibiotics than GPs
 - Sicker case mix?
 - Prescribing behaviour?
 - Gap is narrowing.
- Local prescribing drivers are reflected in OOH prescribing
- Prescriber interventions can help increase appropriate prescribing

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