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#### Title:

Antimicrobial prescribing in primary care: An evaluation of factors influencing prescribing and General Practitioners' reported use of strategies to reduce overprescribing Sin S, White S, Batchelor A, Chapman S. School of Pharmacy, Keele University

**Abstract:** (Please refer to instructions to authors and example abstract)

## **Focal Points:**

- This study aimed to determine factors that local GPs reported as most strongly influenced their recent antimicrobial prescribing and their reported use of strategies to reduce overprescribing
- All respondents reported educating patients about antimicrobials, whilst 86% reported using delayed prescriptions (given to the patient), 57% reported using patient decision aids, 43% reported using 'no prescription necessary' sheets and 57% reported using delayed prescriptions (for patient to collect from GP practice)
- Training events are planned for GPs to present the study findings and promote increased use of all strategies

# **Introduction:**

Unnecessary use of antimicrobials can lead to antimicrobial resistance. According to the UK 5-Year Antimicrobial Resistance Strategy, antibiotic prescribing in primary care is targeted to reduce by 4%. The Clinical Commissioning Group (CCG) has recently updated guidance for antimicrobial use, and is keen to promote strategies that reduce unnecessary use. These include GPs educating patients about antimicrobials, using patient decision aids in consultations, giving 'no prescription necessary' sheets to patients and issuing delayed prescriptions (either given to the patient or left at the practice reception for patients to collect). This study aimed to determine which of these strategies local GPs reported using and the factors that were reported to have influenced their recent prescribing of antimicrobials most.

#### Methods:

An online questionnaire was developed on the basis of the aim of the study and a review of the literature (e.g. to identify the common factors influencing antibiotic prescribing practice). Respondents were asked to rate factors affecting recent antimicrobial prescribing on a scale of 1 (least influential) to 5 (most influential), and estimate recent use of patient decision aids, 'no prescription necessary' sheets, delayed prescriptions (given to patients) and delayed prescriptions (for patient to collect from GP reception) for antimicrobials. The CCG's Head of Medicines & Prescribing distributed the hyperlink to the questionnaire in an email to all GP practice managers in the CCG for GPs to complete. Data were subjected to descriptive statistical description. Ethics approval was not required as this was deemed a service evaluation.

### Results:

Responses were received by 17 GPs from 14 practices, which represented 29% of GP practices in the CCG. (n=48). All respondents reported being aware of the updated local antimicrobial guidelines, 94% reported knowing how to access them and 82% reported having used the quick reference guide. Aware of the Quality Premium for antimicrobial prescribing was reported by 65% of respondents. Median scores for factors perceived as most influential on recent antimicrobial prescribing included physical examination findings (5), patient's age (4), public health concerns (4), duration and worsening of symptoms (4), potential adverse effect from antibiotic (4), and local antimicrobial guidance (4.0). Perceived patient and parental expectation for antibiotic (median scores: 2 and 3 respectively) was not reported to strongly influence respondents' prescribing decisions. All respondents reported educating patients about antimicrobials and 86% reported using delayed prescriptions (given to patients). Reported usage of other strategies was lower, with 57% of respondents using patient decision aids, 43% reported using 'no prescription necessary' sheets and 57% reported using delayed prescriptions (for patients to collect).

## **Discussion:**

Although the sample size was small, the findings suggest that local prescribing of antimicrobials was highly dependent on physical examinations and patients' symptoms, and strongly influenced by the local antimicrobial guidance but not by patients'/parents' expectations. Increasing the incentive to use 'no prescription necessary' sheets and delayed prescriptions (for collection) could reduce overprescribing of antibiotics. The study findings will be discussed with local GPs at forthcoming training events, where the CCG guidelines, the Quality Premium and increased use of the strategies will also be promoted. Local prescribing of antimicrobials will be regularly audited.

# **References:**

1. Department of Health. *UK Five Year Antimicrobial Resistance Strategy 2013 to 2018*. Department of Health, 2013: London (Assessed: 01/04/2016). Available from:

 $\underline{https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/244058/20130902\_UK\_5\_year\_AMR\_strategy.pdf}$