Title: Antibiotics for coughing in general practice: a questionnaire study to quantify and condense the reasons for prescribing

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Reviewer: Dr Nigel Stocks

Level of interest: not specified

Advice on publication: Accept after discretionary revisions

The results of this study are based on responses by Flemish GPs to a postal questionnaire exploring their self reported attitudes and behaviour towards the prescription of antibiotics for respiratory tract infection (RTI).

1. Importance
Acute respiratory illness (ARI) (excluding asthma) is still an important cause for presentation to general practitioners. ARI can have considerable impact on patients' lives. (1) Antibiotics are thought to be over prescribed for these conditions (2) and a recent systematic review of treatment for acute bronchitis, concluded that the benefit from antibiotic treatment was modest. (3) Although it is recognized that patient factors influence the prescription of antibiotics (4,5) little is known about general practitioners (GPs) behavior with respect to the prescription of antibiotics and this knowledge could be useful when developing guidelines or educational material for GPs.

2. Originality
Whilst the methodology is not new and other studies have explored this area this study was designed to inform an intervention trial and the analysis and presentation of the results is original.

3. Science/Evidence
The major flaw in this study is its generalizability. The response rate of only 59.5% is at the very lower end of acceptability, especially when the group being surveyed had already been selected on the basis of their willingness to participate in previous studies by the same research unit. Nevertheless the analysis and results are important and quite consistent with previous research. (6)

4. Interpretation
The results are interpreted correctly however more discussion about patient factors that influence a GPs decision to prescribe antibiotics may have been appropriate. There are a number of studies that have
explored this area. For instance patient expectations have been shown to affect the prescribing behaviour of GPs for both upper(7) and lower(5) ARI. These expectations may be driven by the patient view that they have an 'infection' and therefore require antibiotics.(5) It has already been suggested that a GPs opinion about patient expectation may be the strongest determinant for antibiotic prescribing.(8) Also effective strategies such as delayed prescribing (9) and patient information leaflets(10) have been reported as decreasing antibiotic use and reconsultation.

Similarly the authors might have discussed the conclusions of the most recent Cochrane review for acute bronchitis that suggests "that there may be modest benefits, at least for some patients" [for antibiotic use] and suggests that research be directed at "the identification of subsets of patients who are most likely to benefit from antibiotic treatment".(3) This sentiment was echoed in a British Medical Journal editorial last year and relates to patients with chest signs as one such group.(11) In addition even in a group of well informed GPs, who had participated in several studies of acute bronchitis, the GPs thought that up to 64% of all patients who received antibiotics actually needed them.(12) Therefore it may be wrong to suggest, or educate GPs, that prescribing antibiotics to patients with chest signs is inappropriate when we just don't have the evidence.

Advice on publication
I believe this paper should be published

Compulsory revisions
None

Discretionary revisions
A fuller discussion of patient factors and the potential importance of chest signs as a determinant of antibiotic prescription might be helpful for readers.

References
9. Dowell J, Pitkethly M, Bain J, Martin S. A randomised controlled trial of delayed antibiotic prescribing
as a strategy for managing uncomplicated respiratory tract infection in primary care. British Journal of General Practice 2001;51:200-205.

Competing interests:

Dr. Nigel Stocks has an interest in ARI and conducted a postal survey of general practitioners in the UK (1999) concerning the diagnosis and treatment of acute bronchitis. He is seeking funding to conduct a RCT of antibiotic treatment in defined sub-groups of patients with ARI (including those with chest signs).