Reviewer's report

Title: Diagnostic labelling and other GP characteristics as determinants of antibiotic prescribing for acute respiratory tract episodes

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Reviewer: Lexley M Pinto Pereira

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General
This is an interesting paper which seeks to determine if a diagnostic label for a symptom of an URTI is a determinant for prescription of an antibiotic in general practice. It has searched a vast database of patients serviced by many general practices in Holland. The most important recommendation that comes from the paper is the need to educate prescribers to avoid prescribing antibacterial agents for symptoms which may occur from a self-limiting viral illness and focus on prescribing for clinically diagnosed bacterial infections. It is also an alert for appropriately recording the clinical impressions of illness.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

INTRODUCTION
Studies should be cited as the referenced term or by the author and not as 'the 2001 study'
Please give the reference for the ICPC-1 diagnostic code

METHODS
The term antibiotic should be defined - did it include the quinolones also?
How can GPs medical knowledge on antibiotic prescribing be assessed on a 10 point scale on a questionnaire? Were the questionnaires personally administered or were they mailed? This seems to be a self-assessment and is a very subjective assessment and seems to be indicated by the high score attained with low SD.
The data in Table 2 on Views on acute respiratory tract symptoms and antibiotics is not discussed in the Methods

RESULTS
In Table 2, the rate of ART episodes per 1000 patients /year is 236.9 (in the text) or 275.9?
Demographic analysis of the patients should be presented and also analysed for associations with prescribing. Age, gender, social class, rural or urban location etc may be predictors of prescribing. It would be interesting to see differential prescribing rates for children and adults.
Did the authors look at associations between prescribing and the various symptoms or symptom clusters?
Analysis of results should also look at frequency of prescribing broad and narrow spectrum agents. Was there any pattern for the prescription of cephalosporins, macrolides, quinolones etc?
Does the database indicate if GPs requested any investigations or did the questionnaire look for this? (This was not directly related to the main outcome measure - perhaps the authors did not have this data?)
The results talk of 'no difference between upper and lower ARTs' page 8. Where is the data on the distribution of RTIs as URTIs or LRTIs?

Male gender of the GP is a predictor for prescribing n the Conclusions on pag 14 but is not stated in the Results. Is this finding consequent to the representation of male GPs in the database?

DISCUSSION
GPs persist in prescribing after diagnostic labeling irrespective of the frequency of ART episodes indicating their prescribing habits have set in over an average of just 18 years after registration. Though approximately half the number of GPs (54%) consulted the national guidelines once a week, 56% of them had seen a pharmaceutical representative in the preceeding month before the questionnaire. There are issues here which need to be discussed e.g. on the importance of educational interventions for rational prescribing. The authors should emphasise the necessity of CME programs for GPs to avoid prescribing for symptoms and discuss interventions to reduce such antibacterial prescribing.
Reference No 12, I could not get the fact as the authors state on diagnostic labeling from Howie's paper.
Please check it.

CONCLUSION
Diagnostic labeling is not correlated with the number of ART episodes- so how do the authors conclude that 'The more ART episodes are presented to a GP-----the more GPs prescribe antibiotics for ART episodes.'??

Male gender is a determinant likely due to 75% of males among the the GPs. Suggest the title be altered to
read as 'Diagnostic labeling is determinant of antibiotic prescribing for acute respiratory tract episodes in general practice.'

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
A check for syntax and grammar is compulsory, throughout the text.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
'I declare that I have no competing interests