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: Chris Del Mar

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This is a very interesting observational study analysing the correlation of factors—especially the tendency to label ‘acute respiratory tract episodes’ (ARTEs) as ‘infectious’—with the rate of prescribing per 1000 patients registered/year.

Although the correlation coefficient is higher for the rate at which the GPs (or in some cases the whole practice where GP and practice could not be disentangled) see ARTEs, (ie a volume effect), nonetheless the labelling rate was also correlated.

The methods are meticulously described and executed.

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

1 The notion of ARTEs is a worry. It will be an unfamiliar term to most GPs, who commonly (in English, anyway) call them something like ‘acute respiratory infection’, ARIs, or ‘upper respiratory tract infections’, URTIs and so on. To most of us the issue is less whether the episode is an infection (as opposed to I assume mostly upper tract allergy, and lower tract asthma?), as to whether the infection is viral or bacterial. It is a pity this wasa not the discriminator

2 the whole design concept is dependent on the way patients with ARTEs are distributed among GPs is homogenous. This sounds reasonable (and the Authors make a case for there being no biological reason why this should not be so). However there may other social factors operating that the authors may have not taken into account. In particular we know that patient behaviour is influenced by doctors' prescribing habits (see Little P, Gould C, Williamson I, Warner G, Gantley M, Kinmonth AL. Reattendance and complications in a randomised trial of prescribing strategies for sore throat: the medicalising effect of prescribing antibiotics. BMJ 1997;315:350-2.). Could there not be similarly operating some influence of patients who want antibiotics to find the doctor in the practice more likely to prescribe them? “It’s no good seeing her, she never takes cough seriously!”). This might explain the added correlation with volume of ARTEs as well. Both these points should be expanded.

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. It is worth making things clearer in the Abstract: ‘Diagnostic labelling’ should be spelled out as “the proportion of acute respiratory episodes to be labelled infections”; and the ‘volume of prescribed antibiotics’ should be called “number of antibiotics prescribed per listed patient per year”).

b. in general the English needs copy-editing to ensure clarity. (eg p10 there is a tautology in the beginning sentences; and GP’s should be GPs’)

c. In the Abstract in particular I think it is necessary to explicitly describe the time duration of the study (I presume it is one year?).

d. ref 10 should have one of these earlier studies by Howie which really were the first introduction of the idea of diagnostic labeling being an effect rather than a cause:


What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest 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