Reviewer's report

Title: Is new drug prescribing in primary care specialist induced?

Version: 1 Date: 20 November 2007

Reviewer: Jane Robertson

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General

While the question posed by the authors is not new, the authors have tried to refine the question to initiation of new drugs, based on prescribing patterns within 6 months of marketing. However, the authors have not addressed the issue of new drug (as first in class) versus new drug in an existing, often established class of drugs (e.g., a new statin, or a new PPI). It is likely that specialist influence will vary in these two scenarios. All of the drugs examined in this study really fall into the second group i.e., another drug in existing class. It may be that GP familiarity with use of other drugs in the class leads to earlier uptake on the basis of clinical claims such as improved dosage schedules and possibly better patient adherence.

The authors do not outline the claims of the clinical benefits in each case that might influence switching from older to newer agents within class and I think this is a limitation of the reporting of the study and might assist in interpreting observed patterns. The authors do refer to low perceived risk associated with some drugs, but without further elucidation of this point. The discussion suggests that the mix of patients for specialists might comprise “more severely ill patients that may be more likely to benefit from new drugs”. The clinical claims for the study drugs would help support or refute this statement. The authors could also comment as to whether there were any differences in costs of drugs that might encourage switching treatments within drug class (e.g., fewer patient co-payments for the combined LABA and ICS compared to administered separately).

The study itself is reasonably well described. However, reliance on administrative records (presumably issue of prescription by specialist or GP as the means of classification) may tend to underestimate the influence of specialists on prescribing if specialists have recommended a particular treatment to the GP in either letter or telephone consultation with the GP. This influence would not be captured using the methods described here.

I found some of the results a little confusing. Table 2 and the text suggest that 52.7% of patients starting on tiotropium received their first prescription from a specialist. The next paragraph (and Table 3) states that proportion of GPs starting therapy was 66.3% for tiotropium. The differences in the analyses and results (patient and GP level) need to be made clearer for the reader.
It is difficult to interpret the apparent trends to shorter time to prescribing where GPs initiated prescribing before any patients had received a prescription from a specialist (Table 4), e.g. whether these represent early adopters (“innovators”) of new therapies or a willingness to switch drugs within class for specific claimed benefits.

Overall, the paper is well written. The discussion is generally balanced but I think would be enhanced by inclusion of comments regarding the points identified above.

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

I think the authors should comment on several issues:
(i) the issue of new drug (as first in class) versus new drug in an established class of drugs
(ii) outline the claims of the clinical benefits and any differences in costs that might influence switching from older to newer agents within the drug class
(iii) any limitations in identifying extent of specialist influence using database records only.

In addition, I think the authors should clarify the differences in patient level and GP level analyses and therefore the interpretation of results in Tables 2 and 3.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

There are a few minor typos (fist time rather than first time in the last paragraph of the methods section) and unclear phrases (‘may have referred to medicals’ in the last paragraph of the results). In the results, “Overall 16797 patients received a drug from the reference groups” could perhaps be “started a drug from the reference groups” to remind the reader these were all new prescribing decisions. Parts of the paragraph “Main outcome measurements” could perhaps be rewritten. “To answer the first research question we calculated….” I found it necessary to go back in the paper to be reminded of the question. The second question was restated in part in this paragraph which made for easier reading.

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 whose findings are important to those with closely related research interests

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

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.