Reviewer’s report

Title: Do decision support systems influence (variation in) prescription?

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Reviewer: Edward Hammond

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Title: Do decision support systems influence (variation in) prescription?
Author: Judith D. de Jong, et. Al
Reviewer: Ed Hammond
Date: August 23, 2008

General comments:
Major compulsory revisions

In this reviewer’s opinion, the authors failed to adequately address the previous reviews. Most of the comments were addressed, but more in a defensive mode rather than an appropriate response. This reviewer agrees that content is a function of beliefs and judgment; however, at least the perception of the reader needs to be considered and clarified. Even the title is less than clear. Why not entitle the paper “Do decision support systems influence prescription?”

The biggest problem this reviewer has with the paper is the lack of information to clearly understand exactly what is being evaluated. The authors rebutted the criticism that the quality of the guidelines was unimportant. If the DSS recommendations are incorrect, then no quality physician will follow the guidelines. Further, it is not clear what the nature and form of the recommendations were. Does the DSS recommend a single drug or a set of drugs for a given problem? If the prescriber has choices then it is obvious that other factors come into play, and comparison of variation in prescribing makes no sense. You need to include some description of the ATC-5 coding system. Does this coding system identify a class or type of drug, or does it identify a specific drug?

You need to set the stage better as to the value of this study. Is variation good or bad? If the variation is simply a matter of choice among an appropriate set, then it is unimportant. If the variation results in inappropriate prescribing, then you need to discuss the prescribing characteristics. Tracking variation among appropriate dosing is entirely a different matter.

The quality of the English in the article is only fair. Some of the sentence constructs are incorrect, and some of the sentences are awkward. You should define any acronym before using it in the text. You frequently use “this” as the subject of the sentence without referring to “this what”. In some cases what this refers to is unclear. “This” is an adjective. AN example of the missing subject
There is evidence that decision support systems do change behavior simply by making suggestions. One of your references makes that point.

On page 5, why is unwanted variation in prescribing negative? It depends on whether the variation is among appropriate drugs or whether the variation is improper medication. You do not address medical error or patient safety, which should be the focus of the study.

The paper is most redundant. The same phrases are repeated throughout the paper. The writing needs to be tightened.

On page 8, how did you control for the differences in GPs who did not have a DSS and those who did not use available DSS? What parameters distinguish these two groups that could be evaluated?

Again, on pages 8 and 9, you use the adjective :this: as the subject of the sentence when “this what” is not clear. The discussion of the model is not clear to this reviewer.

You use the Herfindahl-Hirschman index as a measure of concentration. First, this reviewer’s understanding of HHI is that HHI is used to measure the influence of dominate factors in a multi-organization market. The HHI takes into consideration unequal volumes among the participants. Please explain how this applies to MD prescribing.

Why did you think the age and sex of the patient would apply to the parameters of this study.

The material on page 11 was redundant.

The material in the middle of page 12 (3rd paragraph) is particularly disturbing. If the recommendations are only partially evidenced based (not a good advertisement for the Dutch College of General Practice), or if the advice can lead to undesirable outcomes, or if there are other problems with the DSS, then the study is meaningless.

Table 1 is not useful.

This reviewer believes the paper has serious problems.

**Level of interest:** An article of limited interest

**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.