

Reviewer's report

Title: Implementing Electronic Clinical Reminders for Lipid Management in Patients with Ischemic Heart Disease in the Veterans Health Administration

Version: 1 **Date:** 12 March 2007

Reviewer: Trudy van der Weijden

Reviewer's report:

General

- This is a relevant subject, as the under use of lipid lowering drugs in patients suffering from IHD has been reported as a problem by others.
- The authors have tried to embed clinical reminders on national guidelines on lipid management in a programme consisting of an educational kick-off meeting, training in the installation and use of the reminders (a patch to the VHA patient record system) including necessary support, and bi-monthly conference calls.
- There are some methodological flaws in this study, one of which is correcting the results for the professional's self-reported use of the reminder, or the failure to have a good contrast between groups on reminder use.

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

- The effect of the intervention has been described for the actual application of the reminders. The effect was also analysed with controlling for the degree of reminder use as it was self-reported by the professionals. This is in my view a serious flaw. Providers generally overestimate their performance, and probably also their use of educational or quality assurance strategies to which they are exposed. But my main criticism is that we should not correct for actual reminder use, as the fact that reminders have not always been used is real practice and an important finding in itself. (We would e.g. not believe results from a drug trial that were blown-up through correction for patient adherence to the medication.)
- Why was the intervention not randomly allocated between the western and eastern side of the Rocky Mountains networks?
- No power calculation seems to have been done.
- Data on the number of reminders due and reminders satisfied were available only for the intervention arm, for the latter half of the intervention period.
- It is not clear how the self-reported use of reminders was measured. By asking professionals "about their use of reminders generally, and the IHD reminder in particular" is rather vague.
- page 13, 3rd paragraph: The authors should reflect more on the failure to have a maximum contrast between groups on reminder use.

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

- The intervention: the reminders were integrated in the Patient Record. "Once triggered they appear in a folder that is available through the face page of the patient's record when it is first opened by the clinician." What does this mean in real practice? Is the clinician always the one who is confronted with the message, or may it be erroneously be the secretarial assistant who prepares the consultations? So, what is the actual exposure?
- There are escape options for the clinician; one being reasons for deviation of the guideline. This is potentially very interesting information, that might have been integrated in the results as clarification or even a correction factor. The clinician might have very good reasons for deviation, e.g. patient's lipid levels are already known from other sources, or the patient is not willing to start lipid-lowering therapy.
- In the analysis, data of the beginning and end of the intervention period were compared. Before-after would have been better. It is imaginable that the effect of reminders is largest in the beginning of the intervention period, and this will then weaken the contrast between before and after.

Discretionary Revisions (which the author can choose to ignore)

- There is quite some unnecessary overlap in text. The writing style is not always clear.
- Abstract: "Lowering serum cholesterol has been shown to reduce coronary events, cardiac death and total mortality AMONG HIGH-RISK PATIENTS.
- Abstract: The methods section should contain info on number of participants.
- The data are difficult to interpret as they are reported per hospital only in the tables, without summary estimates per trial arm.
- page 9: "We report frequency of reminder use from the reminder reports." What are reminder reports?
- page 11, footnote. Should you not refer to Table 2?
- Page 12: Both performance and attitude data are reported in the first paragraph, which is confusing.
- Women with IHD have been reported in literature to suffer more from under diagnosis and treatment compared to men. Did you have similar findings?

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 limited interest

Quality of written English: Acceptable

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