Reviewer’s report

Title: Prognostic Value of Physicians’ Assessment of Compliance in Patients with Type 2 Diabetes: Primary Care Follow-up Study

Version: 1 Date: 13 December 2005

Reviewer: Marcel Adriaanse

Reviewer’s report:

Dear Authors,

This paper reports the results of a prospective cohort study that was conducted among 1018 patients with type 2 diabetes in South Germany reporting the prognostic value of physicians’ assessment of compliance associated with mortality. With great interest I read this interesting article. A lot of good work has been done. Here by my comments in chronological order. Some of them are minor issues, other are major issues.

p = page, l = line

Frontpage
1. Title, p 1; This study is whether there is an association between the prognostic value of physicians’ assessment of compliance in type 2 diabetes with all cause mortality. To make it for the readers of Family Practice more clear a suggestion: Prognostic Value of Physicians’ Assessment of Compliance in Type 2 Diabetes Patients regarding all cause mortality: Primary Care Follow-up Study for Family Practice.

Abstract
2. p 2; Please impute a clear and separate Objective of this study; most ideally in one sentence.
3. p 2. In the Methods section the authors should include the operationalisation of one of their most important variables “physician’s assessment of patient compliance”; which is one 4-point Lickert scale (very good, rather good, rather bad, very bad) type question.
4. p 2.; the authors used also a more qualitative (standardized questionnaire) method in a sample of 15 physicians, in addition to there main research question. In my opinion this is should be included part of the method section.
5. p 2. In the methods the authors write: “Active…. to determine vital status.” What do the authors mean?.. is it living status (see p 5.), vital status, health status, or treatment parameters. Please give the precise definition.
6. p 2.; please provide in the abstract that data were gathered by a standardized questionnaire, provide age (± sd) and sex distribution.
7. p 2; the first sentence of the results section is not (really) a result. It is a description of the number of patients included in the study population. The authors could move this sentence to the methods section. Suggestion: Move it to the Methods section: “A prospective cohort study was conducted among 1018 type 2 diabetes patients, age over 40 years, who were under medical treatment in 11 participating practices of family physicians and internists working in primary care in a defined region in South Germany between April and June 2000.”
8. p 2, l 14; the authors used the word “very poor”. This is actually not correct, shouldn’t it be “very bad”, as presented in the methods section on page 4?
9. p 2.; The second sentence of the results section (The physician’s …. mortality) is not a result but an outcome. This is the conclusion of this paper. I would suggest to remove this sentence out of the results section.
10. One of the outcomes is: “Patient compliance was judged by the physicians as rather to very good for 63% of the total population. (p 6, results). Is this not an outcome that should be presented in this abstract?

11. p 2. One of the outcomes of this study is that “high HbA1C–value (= 8%) and a cholesterol value = 257 mg/dl (= 8th percentile) at baseline showed no statistically significant association with all-cause mortality during the one year follow-up” (p 6-7). I think this is an important outcome and should be part of the results section.

12. p 2.; the last sentence of the results section (The prognostic…other prognostic factors) reports of other prognostic factors. Do the authors perhaps mean risk factors? Or do the mean HbA1C and cholesterol?

13. p 2.; perhaps the authors could impute some Keywords to the abstract.

Introduction

14. p 3, l 4-5.; Patients….is increased by 75% compared to whom? The authors should add to this information to this sentence.

Methods

15. p 3. Replace und by and.

16. p 4. l 4-5; Perhaps I’m wrong, but I think the authors mean that “…, in total 15 physicians are were involved”.

17. p 4. Did patients in this study gave written informed consent? And did an Ethical Review Committee approved the study? If not, why? If so, than please provide the readers this information.

18. p 4, l 8; please impute if these are the WHO 1999, WHO 1985 or ADA criteria?

19. I appreciate the fact that the authors did gather additional data. Please provide the readers more information about the additional questionnaires of the sample of 15 physicians. Perhaps the authors could include their questionnaire to show the readers which questions/variables were gathered.

20. p 5, l 4; The authors write that “patients’ living status was recorded”. What do the authors exactly mean? Is it living status, vital status (abstract), health status or treatment parameters (p 3)?

21. Of crucial importance in this study how “physicians’ assessment of compliance” is measured. The authors used one single 4- point Likert-scale type of question (very good, rather good, rather bad, very bad). The authors did not use a validated, reliable measure. a) What is the reason for not using a validated, reliable measure?

22. In this study the authors merged the categories “very good or rather good” (table 4) and compared them with the category “rather bad” and “very bad”. Why not merging the categories “rather bad” and “very bad” as they did with “very good or rather good”? which would be a consistent decision. Moreover, these are ordinal variables. And what would be the outcome?

Statistical analysis

23. p 5, l 17. In this section the authors showed that microvascular and macrovascular complications were measured/used as yes or no. a) Could the authors please provide the readers more information about these microvascular (diabetic retinopathy, impaired foot sensitivity, albumin-to creatinine ratio, microalbumunuria etc?) and macrovascular ( myocardial infarction, ischemic heart disease, peripheral arterial disease, intima-media-thickness etc?) complications. b) How does the physician know for sure?

Results

24. p 6, l 2. The authors show that all eligible patients with Dm were 88%. Could it be possible that those other 12 % were had different characteristics that could have influenced the primary outcomes? Could the authors give there comments.

25. The number of patients and collection is not real clear to me. How many patients were asked to participate in the study? How many of those did participate? Of how many of those who participated at baseline, had complete follow-up data after 1 year? ... it seem to me that the numbers in table 1 and 2 are incorrect.

26. The authors should try to avoid double information. They should either present their data in a
table or in the text, not both. For example the text on, p 6, line 21-24 (Patients ...(p=0.01) is already provided in table 3.

27. p 7, last paragraph. In general, qualitative research does not seek to quantify data. The authors present the importance of various aspects as percentages. This is not really elegant and somewhat misleading. One aspect, mentioned by one physician is already 6.7%. So 2 out of 15 is 13.4% etc. Please skip these percentages as they are not reliable; they just give an impression. Table 5 does not add much surplus value.

Discussion

28. There is no good research without limitations. The authors should discuss some other limitations of this study. Major limitations of this study are:
- Lack of a comparison group.
- Use of non-validated and reliable questionnaires.
- No comparison with another related sample and or norm groups (in Germany).

29. The authors should try put there results in the light of other national and international studies, looking for similarities and differences.

Tables

30. Perhaps I’m mistaken, but ... it seem to me that the numbers in table 1, 2 and 3 are incorrect. Almost none of the variables of the two groups presented in table 1 do add up to 885 or 133 or 1018. For example: 37 male and 110 female are 147 patients of 133 Care home or visited patients? For example: last column n=461 male + n=552 female = 1013, etc, etc. Neither does the presented numbers add up to n=1018 in table 2 and 3.

31. Moreover, the numbers presented in table 1 do not correspond with the numbers presented in table 2 and 3. For example: the numbers given for family status in table 1 (n=1018) do differ from those given in table 2. The authors really should clear point 30 and 31.

32. The tables present numbers and percentages at the top of the table; putting percentages beside each variable is double information. Please skip these percentages (%) in table 1,2 and 3.

33. p 16. Table 4 does not present microvascular complications, which are included in table 2 on page 15. Is there a special reason for this?

Miscellaneous

34. The authors gathered information from Gp’s and internist (p 4.); perhaps they could use the word physician throughout the paper.

35. HbA1C and cholesterol are continuous variables, why not presenting them that way, including their SD? I prefer to present them as a continuous variable.

36. Perhaps it would be interesting to test the sociodemographic and medical characteristics between the Patients presenting at office and Care home patients, since they differ significantly regarding almost al variables, including physician’s assessment.

37. The authors should try to up-date their references. The first 15 references are not up to date, they vary from 174 to 1999. A lot of good work has been done the last 5 years and I think the authors should try to use these and impute them in this paper.

38. I read reference 16 (Brit J Gen Pract 2003, 53:389-391).1 In that paper the authors used the 4-point Lickert scale (very good, quite good, bad, very bad). In this paper the authors used the scale (very good, rather good, rather bad, very bad) measuring “physician’s assessment of patient compliance”. Thus, two categories differ. Could the authors explain these differences?

39. Moreover, is it possible that by using different formats, this will generates different outcomes?

Reference List

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: Needs some language corrections before being published

Statistical review: Yes

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