Title: German ambulatory care physicians’ perspectives on clinical guidelines - a national survey

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Version: 2 Date: 10 May 2006

Author’s response to reviews: see over
Reviewer's report
Title: German ambulatory care physicians' perspectives on evidence based medicine - a national survey
Version: 1 Date: 8 March 2006
Reviewer: Paul Glasziou

Reviewer's report:
General
This appears to be an interesting survey of 500 German clinicians about their attitudes to guidelines (and also partly about their attitudes to EBM). Particularly interesting is the finding about the degree of trust varying by who developments the guidelines. I think the article is useful but there are some clarifications needed in the methods and presentation.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The title is inappropriate and should be "German ambulatory care physicians’ perspectives on guidelines – a national survey". Most of the article is about guidelines and not about evidence based medicine. Evidence based medicine is about clinicians being informed by evidence to aid clinical decisions e.g, the hierarchy of evidence goes from systematic reviews to case-control studies but does not even mention guidelines (see [1] for a discussion of this issue and myths about EBM) This confusion of EBM with guidelines permeats most of the writing.

- We agree with this major aspect from the review. It is clear that clinical practice guidelines (CPGs) are not an element of the scientific hierarchy of EBM and thus have to be discussed as a separate issue. Subsequently the sections “background”, “results”, and especially “discussion” were re-structured and are now focussing on CPGs and their role as instruments for the implementation of EBM in daily practice. Accordingly, the title was changed as suggested by the reviewer.

2. The sampling methods are not described. What was the sample frame (that is the list of doctors from which the 500 were chosen?) How were they selected from the sample frame? What was the response rate?

- Doctors were interviewed by telephone using a standardized questionnaire through the polling institute. According to previous experience by the polling institute, sample size was determined to be 500 physicians. The sample was a disproportionally stratified quota sample of 250 primary care physicians and 250 specialists. Stratification characteristics were frequency and distribution of physicians according to specialty and state based on the information of the German Medical Association and the National Association of Statutory Health Insurance Physicians. Primary care physicians were stratified according to state. Due to smaller numbers of specialists in Germany the broader Nielsen-classification (7 regions in Germany instead of 16 states) was chosen for stratification of specialists to achieve adequate sample size. Age or numbers of patients treated per three-month period were not included as characteristics as there is only regional, non-comparable data available. Gender was not included because experience shows that distribution in the quota matches the national distribution. According to the stratification characteristics the
interviewers recruited physicians by phone during consultation hours of their practice until 250 primary care physicians and 250 specialists had completed the interview. Sample frame were local resources available to the interviewers, e.g. regional physicians’ registers. Exact response rate was not recorded by TNS Healthcare. The estimated response rate was between 14 and 20%. In addition, on average 3.5 telephone contacts with the interviewee were necessary to realize the interview. Interviewed doctors received a nominal fee (25 Euros) as a compensation for their time an effort.

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

3. The presentation of the graphs could be clearer as the undecided and disagree hatching are “very” similar.
   - Commentary accepted and changed in manuscript

4. Please give only 2 figures for most values e.g, Chi2 3.78 and p=0.477 should be 3.4 and 0.48 respectively.
   - We have applied the following: Accuracy to one decimal place for years and percentage, two decimal places for all other values (with the exception of some p-values where appropriate)

5. Figures 6 & 7 the x-axis legend does not line up properly with the data and makes reading hard.
   - Commentary accepted and changed in manuscript

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**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:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**
I declare that I have no competing interests
Reviewer’s report
Title: German ambulatory care physicians’ perspectives on evidence based medicine - a national survey
Version: 1 Date: 26 March 2006
Reviewer: Ilkka Kunnamo
Reviewer’s report:
General
The manuscript adds to the knowledge about attitude barriers of implementing evidence-based medicine. The study is a practical substudy of a national survey on health professionals and tackles a topical question. As the authors state in their discussion, the results of their telephone survey are exploratory and hypothesis-generating. Qualitative studies (e.g. focus group interviews) are needed to explore the reasons for the attitudes (including reimbursement issues and patient expectations) that may be specific to Germany.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
Figure 5: The lines and bars are not easily comprehensible without more explanations. The vertical scale points are missing. Positions of the lines indicating means do not exactly match the numbers given in paragraph 2 on page 11. The meaning of the symbols (blocks and bars) should be explained in the figure legend. Is the line indicating the mean for primary care physicians in the right place in relation to the block?
  • This problem was addressed by choosing a different form of graphical representation (bar chart) to make the figure more accessible to the reader.

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

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Discretionary Revisions (which the author can choose to ignore)
Pages 6 (line 2) and page 7 (line 10): There should be a more detailed explanation for the grouping of physicians into primary care physicians and specialists already on page 6.
  • Commentary accepted and changed in manuscript

Page 8, lines 7 - 9: The numbers given in the text could be presented in table 2 (and omitted from the text).
  • Commentary accepted and changed in manuscript

Page 8, paragraph 4: There is a discrepancy in the percentage of primary care physicians reported in the text (41.5%) and the combined percentage of the first 4 specialties in table 3 (51%). This discrepancy is explained on page 7, but it would be better to include this information in the table, e.g. by listing primary care physicians and specialists separately.
  • After reviewing this table and context in the manuscript, this table was taken out as it did not contribute to clarification.

I suggest that the authors omit table 1 and include the complete items from table 1 in figures 1 – 4. This is because the short versions of the items in figures 1 – 4 are not always comprehensible as such, and the reader must alternate between table 1 and figures 1 – 4 when examining the figures.
  • Commentary accepted and changed in manuscript
Spelling and terminological issues:

ebm -> EBM

- Commentary accepted and changed in manuscript

Basic data -> Baseline characteristics

- Commentary accepted and changed in manuscript

**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:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**
I work as the editor-in-chief of EBM Guidelines, a guideline collection that is used in a number of countries, including Germany.
Reviewer's report

Title: German ambulatory care physicians' perspectives on evidence based medicine - a national survey
Version: 1 Date: 13 March 2006
Reviewer: Stefan Sauerland
Reviewer's report:

General
This is a well-conducted survey on the acceptance of EBM by physicians in Germany. Since the sample is representative of German ambulatory care physicians, the validity of the results is high. The importance of the findings is also high, especially for guideline developers.

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

1. The overall response rate needs to be reported. Otherwise, the study’s potential for response bias can not be understood. Please describe how many physicians were selected for phone interviews, how many were successfully reached by phone, and how many were willing to respond to the questionnaire.

(see also answer to Paul Glasziou)

- Doctors were interviewed by telephone using a standardized questionnaire through the polling institute. According to previous experience by the polling institute, sample size was determined to be 500 physicians. The sample was a disproportionally stratified quota sample of 250 primary care physicians and 250 specialists. Stratification characteristics were frequency and distribution of physicians according to specialty and state based on the information of the German Medical Association and the National Association of Statutory Health Insurance Physicians. Primary care physicians were stratified according to state. Due to smaller numbers of specialists in Germany the broader Nielsen-classification (7 regions in Germany instead of 16 states) was chosen for stratification of specialists to achieve adequate sample size. Age or numbers of patients treated per three-month period were not included as characteristics as there is only regional, non-comparable data available. Gender was not included because experience shows that distribution in the quota matches the national distribution. According to the stratification characteristics the interviewers recruited physicians by phone during consultation hours of their practice until 250 primary care physicians and 250 specialists had completed the interview. Sample frame were local resources available to the interviewers, e.g. regional physicians’ registers. Exact response rate was not recorded by TNS Healthcare. The estimated response rate was between 14 and 20%. In addition, on average 3.5 telephone contacts with the interviewee were necessary to realize the interview. Interviewed doctors received a nominal fee (25 Euros) as a compensation for their time an effort.
2. On page 7, ANOVA is described for statistical comparisons between two groups. However, ANOVA is suitable for comparing three or more groups, whereas Student's t-test is common standard for groupwise comparisons. The authors fail to mention the t-test although they are using it.
   - In order to communicate a common standard all comparisons via "analysis of variance" were substituted by the more common "Student’s t-test". Both statistical techniques revealed comparable levels of significance.

3. Also on page 7, a factor analysis is mentioned, but without giving any details. Since factor analysis is a quite complex statistical procedure, a few more words seem justified.
   - Principal components analysis (PCA) was applied as the most common form of factor analysis to detect the structure in the relationships within these patterns. PCA was used to identify the main dimension within the response patterns in thematic block one. Based on the main dimension of this thematic block two distinct groups were formed thus differentiating according to the physicians’ attitudes towards guidelines.

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

4. Instead of using the asterisk for indicating which authors contributed equally to the manuscript, one simple sentence would be sufficient as footnote: “All authors contributed equally to this work.”
   - Commentary accepted and changed in manuscript

5. In the abstract, mentioning of statistical software usage is unwarranted.
   - Commentary accepted and changed on manuscript

6. It would sound better in the abstract, if exact percentages were reported rather than saying "approximately 50%". The same problem can be found on p.9, line 4.
   - Commentary accepted and changed in manuscript

7. In the abstract’s conclusion, the first sentence is unclear. I would suggest to delete the words "which is", thus stating that "a large group remains opposed to the practice of EBM".
   - Commentary accepted and changed in manuscript

8. Please define the plus/minus sign as indicator of standard deviation in the methods section.
   - Commentary accepted and changed in manuscript

9. On top of page 9, average case load is said to be 1200 and 1400 patients. However, these round numbers apparently are median rather than mean values.
   - In the original questionnaire the question of average case load was phrased as “How many cases have you had during the last 3-months-period?” There were ten possible answers, e.g. less than 400, 400 to 600, 600 to 800, etc. In the data analysis numbers from 1 to 10 were assigned to these categories. Mean values were calculated from these numbers, resulting in this case in a mean value for primary
care physicians of 5.27 and specialists 6.27 with a p<0.001. Category 5 represented a case load of 1000-1200 patients, and category 6 1200-1400 patients per 3-months-period. Responding to your comment we now decided to give categories instead of approximations of case load.

- The mean values for patients seen multiple times in a three-month period were 4.28 for specialist and 4.78 for primary care physicians respectively. Both values represent the same category of 30-40%. This item was not deemed important enough to merit a detailed explanation of the method, and was therefore taken out of the manuscript.

10. The labels in figure 7 do not correspond with the sequence of questions in part 4 of the questionnaire as shown in Table 1.
- Commentary accepted and changed in manuscript

Discretionary Revisions (which the author can choose to ignore)

11. It should be mentioned, whether physicians received a honorarium for survey participation.
- Physicians received a nominal fee of 25 Euro as compensation for their time and effort.

12. Recently performed similar surveys need to be discussed. Please refer to: Heymans L, Kirchner H, Ollenschläger G. Einschätzungen und Erwartungen deutscher Hausärzte gegenüber evidenzbasierten Leitlinien. In: Evaluation 2006. 2006 March 6-9, Bochum, Deutschland.

13. It would be interesting to know, which specialties (shown in table 3) were most reluctant to use EBM.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**
I declare that I have no competing interests.