Author's response to reviews

Title: Walk-ins seeking treatment at an emergency department or general practitioner out-of-hours service: a cross-sectional comparison

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Version: 3 Date: 7 February 2011

Author's response to reviews: see over
Editors and Reviewers

BMC Health Services Research

Zurich, February 7th, 2011

MS: 1367175358454439
Walk-ins seeking care at an emergency department or general practitioner out-of-hours service: a cross-sectional comparison

Dear Editors and Reviewers,

Thank you for giving us the opportunity to submit a revised version of our study. The comments and suggestions have been very helpful in improving the manuscript. We have addressed all points raised by the reviewers as explained in the point by point discussion. In the revised manuscript we have marked the changes in yellow. We hope the paper is now acceptable for publication.

Sincerely

Dr. med. Corinne Chmiel

Response to the comments of Editor:

The paper was copyedited to improve the style of written English. The name of the ethics committee was included. We ensured that the revised manuscript conforms to the journal style.

Response to the comments of Reviewer 1, Mr. Paul Giesen:

This is a "we too" study: In the discussion section (page 17) we described more explicitly why it is important and relevant to perform this study in Switzerland, too.
Why do we call the GP cooperative an out-of-hours service?
To clarify how GP cooperatives are organized in Switzerland we included a box with the main features of the GP-C, as suggested (page 5). We also added some additional explanatory text on the Swiss health care system in the Background and Methods (setting) section (pages 3 and 5). Even though the service covers a 24 hour period, it is called “out-of-hours” because it offers services out of the hours of the GP, such as after closing times, in vacation time or when the GP is occupied.

GP cooperative integrated in the ED; difference to GP-C in our study:
The GP cooperative integrated in the ED at the Zurich City Hospital Waid was implemented as recently as in March 2009 and indeed does have one access point for patients.
Your assumption is correct, that the GP cooperative used in our study was a more traditional GP cooperative, separated from the hospital. The above mentioned changes in the background and settings section should make this more understandable for the readers.

Data collection included only summer at the ED
To exclude potential confounding due to seasonal variation we performed an additional analysis restricted to summer evaluation periods of the GP-C. This stratified analysis showed only minor differences when compared with the non-stratified analysis. We added these differences in the text of the results section (page 11, paragraph 1). To make sure that these results are comprehensible please see the modified table 2 below. We chose not to add this modified table into the study text, because it adds limited additional information. We mentioned the main differences in the study text as mentioned above.

Table 2: Patient characteristics and treatments of pooled summer evaluation periods

<table>
<thead>
<tr>
<th></th>
<th>Pooled (n=1133)</th>
<th>Pooled (n=323)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ED summer 2007</td>
<td>GP-C summer 2009</td>
</tr>
<tr>
<td></td>
<td>ED summer 2009</td>
<td>Night doctors summer 2009</td>
</tr>
<tr>
<td>Age (years) *</td>
<td>43.8 (42.5-45.0)</td>
<td>59.2 (56.1-62.3)</td>
</tr>
<tr>
<td>Male (%)</td>
<td>53.1</td>
<td>43.9</td>
</tr>
<tr>
<td>Walk-in time (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-19</td>
<td>63.6</td>
<td>52.0</td>
</tr>
<tr>
<td>19-22</td>
<td>15.8</td>
<td>13.3</td>
</tr>
<tr>
<td>22-7 *</td>
<td>20.6</td>
<td>34.8</td>
</tr>
<tr>
<td>Diagnostics (%)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>22.3</td>
<td>80.4</td>
</tr>
<tr>
<td>Laboratory analysis</td>
<td>54.8</td>
<td>14.1</td>
</tr>
</tbody>
</table>
We added the results of the additional stratified analysis for the most frequently presented ICPC-Diagnoses in Table 4 and in the results sections of the corresponding text (page 12). The stratified analysis shows the already mentioned differences between infections in summer and winter (see also figure 4). The prevalence of non-infection related diagnoses did not show any difference between the overall pooled analysis and the stratified analysis. This fortifies our assumption mentioned in the discussion section that the “the known variation in diagnoses according to season is likely to affect the ED and GP-C similarly”.

(non)-urgent care
We agree, the brackets were removed throughout the text.

Only 22.7% of the walk-ins ad the ED received ICPC-2 code
In the “emerge”-evaluations ICPC is not routinely assessed. It was possible to retrospectively link the emergency contact recorded in the “emerge” measurements with the reports documented in the information system of the hospital ED. The effort to code all measurements would have been too time-consuming. Thus, we chose to code a random sample of 22%. As mentioned in the discussion section (page 16, last paragraph) the results showed morbidities comparable with previous studies in similar settings suggesting that the randomisation led to a representative sample.

Why was intra-rater reliability and not inter-rater reliability used for the ICPC-2 coding? And was Cohen’s kappa calculated on chapter level or specific diagnosis level?
Only one research assistant coded according to ICPC. That is why the intra-rater reliability was used. Cohen’s kappa was calculated on chapter, component and diagnosis level. We added this information in the text (page 7).

Table 1: add results on mode of contact and diagnostics:
The results on mode of contact (home, practice, telephone contact) for the GP-C were added to table 1. No seasonal variation could be found between the modes of contacts. This is an additional reason why we performed the following analyses in the pooled data (table 2).
The results on diagnostics for both settings are included in table 2. We chose not to add all of the information into one table (table 1) in order not to overcrowd. In our opinion the pooled information is more interesting, which is why we chose to show these results separately in table 2.

Page 6: Characteristics were documented for the first, second and the last patient contact by the GP:
All of these contacts were used in the study to score the mode of contact, diagnostics performed etc. Patients were not included more than once in the sample, contacts in this sense are equivalent to patients.

Discussion; “more diagnostics at the ED because of injuries?”:
We agree with this comment and added the mentioned considerations in the discussion section (page 15).

Discussion/Conclusion, “bring the GPs to where patients go” and models should complement each other:
We did mean an integrated GP-C/ED and added these considerations into the discussion (page 17) and conclusion section (page 18).

Discussion, limitation urban area:
We also added this limitation into the discussion section (page 17).

GPs had to fill in questionnaires for each patient contact.
We agree that especially in the GP-C setting, where data were assessed by the GP, our approach might result in a selection bias due to imbalanced participation. We tried to limit this participation bias by involving the responsible person at the EMTS to remind all the GPs about missing data (see page 6 last paragraph). These measures resulted in a relatively high rate of responses, as mentioned in the discussion section (page 17, second paragraph).

Choose either to use the term “walk-in” or “self-referral”
We chose to only use the term walk-in throughout the text.

Abstract: 1.901 contacts were used for the analyses.
We mentioned this number in the abstract and also gave the N for the ED and GP-C separately (N=1.133 and N=768 respectively).

“Distribution of referral-times to the GP-C did not differ in the different evaluation periods” remove the sentence to page 8:
We removed this sentence to what is now page 9.

Figure 2, 3, 4 and 5
We provided the percentages behind each bar.

Figure 5:
We present this figure in the same way as the other bar charts.
Response to the comments of Reviewer 2, Mr. Moyez Jiwa:

Some more contextual data:
We added some more contextual data within the background and settings section.

Some of the tables use terms that may be misunderstood.
We adjusted some terms in the table to avoid misunderstandings. In Switzerland it is not uncommon for GPs to offer sonography in their practice. Many have attended sonography courses and have received Federal Vocational Education and Training Diplomas. ‘The 2.5% “other tests” offered by the GP-C were not further specified. ‘other’ were offered by GP-C.

Grammatical errors
As also suggested by the Editor, we copyedited the text to improve the style of written English.

‘inappropriate’ use of health care
We agree with this valuable input and have adapted the discussion section according to your comments (page 15/16).