Author's response to reviews

Title: Functional assessment of older patients in the emergency department: comparison between standard instruments, medical records and physicians perceptions.

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Manuscript. Functional assessment of older patients in the emergency department: comparison between standard instruments, medical records and physicians’ perceptions.

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To BioMed Central Editorial Team:

Thank you very much for the opportunity to resubmit a new version of the manuscript, and for your comments about this work. Enclosed is a new version of the manuscript, modified according to your indications and to reviewer’s suggestions and comments.

All authors have seen and approved the study submitted.

Thank you very much for your assistance.
We look forward to hearing from you.

Yours faithfully,

Alejandro Rodríguez-Molinero, MD.
We thank for the comments of Dr Shah.

1. How is this work novel and important? This work shows that most physicians who work in an emergency department in Spain do not ask about functional status, but instead guess and guess wrong. However, it does not address whether they really needed to assess functional status. For instance, if a person has a laceration on their chin, does an emergency physician really need to assess status? Also, when the physician suspects a problem, they do a more detailed evaluation and therefore mention more ADL deficiencies on the medical record, thus indicating “far better knowledge”.

We agree that functional status may be irrelevant in the case of patients who present to the emergency department with minor health problems, for instance a laceration on the chin. In Spanish ED every patient goes trough a triage process (performed by a physician) in order to redirect him to a proper setting for awaiting medical attention. This setting is the sitting room, for less severe pathology, or alternatively, a bed in observation area for more serious chief complaints. In our study all the patients enrolled were patients placed in observation areas, so that they had potential serious pathologies and therefore functional assessment may play an important role in decision making.

We have included a new table showing the amount of data recorded in the medical history according to the degree of disability of the patient. This table shows more ADL detailed on history in the case of more disabled patients, but even in the case of disable, lack of data is really important (40% of the cases).

Please see methods section, second paragraph and new table number 2

2. The authors reference an article that talks about how the ED is a useful site for the geriatrics assessment. Just because one or two articles state it is useful does not necessarily imply that it is. They need to further support why it must be done.

According to some studies, geriatric assessment could be useful and feasible at the ED. It has been proven that it can detect relevant problems and reduce functional decline after the visit without increasing societal costs. Moreover, functional status has been proven to be a strong predictor of hospital outcomes and mortality and plays an important role in decision making for both patients who are sent to home and patients finally admitted.

In order to better support this idea we have now included two relevant references. However, since different opinions about usefulness of geriatric assessment in the ED may exist, we have modified our sentence in this paragraph. We have also added some information about this point in the discussion section.

Please see Background section, third paragraph and references 7 to 10.

3. I do not believe that the medical record is “a valid instrument for improving the reliability and validity of clinical judgment.” Instead, the medical record should reflect clinical decision making and judgment. Please revise this paragraph
We agree with the referee that the medical record should reflect clinical judgement. In the Spanish ED, doctors shift every 8 or 24 hours, and many patients remain in the observation areas time enough to be cared by two or more different doctors. In such cases, clinical history may also be an essential instrument to transfer information through different teams. Therefore a proper history could improve the quality of information regarding the functional status new doctors receive. According to Dr Shah suggestion, we have altered this paragraph in order to better understanding.

Please see page 5 first paragraph.

4. Please identify the primary objective of this study and the secondary objectives. Otherwise, with enough objectives, one will be statistically significant by chance. The final paragraph from the introduction can essentially be reorganized to say that the authors sought to assess the accuracy to which physicians working in the ED (note, not emergency physicians) understand their patients functional status.

The primary objective was to assess the reliability and validity of the clinical judgment of emergency department physicians when assessing their older patients’ functional status.

According to the reviewer, we have now clarified this point and reorganized the paragraph.

Please see Background section, last paragraph.

5. The proper terminology is “emergency department” not emergency room. Please use that terminology.

Please note we have corrected this term all through the text.

6. The authors indicate that the physicians in the ED were either trained in internal medicine or various subspecialties. What level of emergency medicine experience existed for these people? This has serious implications regarding the generalizability of these results because many other countries have emergency medicine specialists providing care in the ED. Please address.

Due to the fact that in Spain does not exist an emergency medicine specialty, the specific level of training in emergency medicine that doctors from the ED should have is not regulated. However, they are trained in different medical specialties, lasting three to five years. In the different programs of training in these specialties a specific ED rotation is frequently included along with an important number of on-call guards at the ED (3-5 guards per month).

According to the reviewer’s comment and given the fact that important variability in medical training exists among the ED Spanish physicians, we have included this point as a limitation of our study that could limit the generalizability of the results to other countries.

Please see page 14, third paragraph.
7. Please add characteristics of the ED’s included, including their volume, admission rate, proportion of patients that are older adults, etc.

An average of 120000 patients attend each ED every year. Approximately 30% of this patients are 65 years old or older. Overall 10% of the patients are finally admitted, however the observing areas where this study was conducted have higher admission rate (up to 50%).

Please see Methods section, fist paragraph.

8. You indicate that 101 physicians cared for 106 different patients. Were these 101 different physicians? I suspect that many of the physicians cared for multiple patients, which changes the meaning of the results.

We included 101 physicians and just one of their patients, what implied 101 pairs. Initially 106 patients met inclusion criteria but 5 of them did not accept to participate in the study. Therefore we finally met data from 101 patients and their 101 different doctors. We have tried to clarify this point in the paper.

Please see page 6, second paragraph, and page 8, third paragraph.

9. Of the 101 physicians, what level of experience do they have?

Residents and fellows included in the study had two to five years of clinical experience. The hospital staff physicians have more than five years of clinical experience.

Please see correction in page 9 (fourth paragraph).

10. Why were the Katz ADLs and the walking section of the Barthel Index chosen?

Both Barthel and Katz´s indexes are widely used in international literature concerning functional evaluation and both are well known in Spain. We used mainly Katz questionnaire because it is shorter than Barthel´s, which is important in the emergency department setting. We also chose the walking section of Barthel’s index because we believe walking is a relevant issue that is not included in Katz’s index.

11. When presenting results, can you stratify based upon patients for whom the functional disabilities would have been relevant?

Unfortunately our sample size is not big enough to stratify the results according to different disability degree. However, attending to the reviewer's question, we have repeated the analysis trying to stratify the data. All we have got are small samples, with not reliable differences between groups, and overall poor physician functional knowledge in all groups. Therefore, we believe that showing these results may not add any interesting information to the paper.
12. In the discussion, the question of how important is functional status documentation is again ignored. I can buy that it is important in treat and release patients since emergency physicians do not want to send home patients with deficiencies, but I cannot agree that it is relevant in admitted patients. Consider the scenario—a patient in admitted with a hip fracture. The functional status at that point is irrelevant. This must be added.

We agree that functional status is important in patients physicians are planning to send home, in order to avoid sending home patients with deficiencies. In this paper we tried to express our concern about functional evaluation of admitted patients too. Physicians impression about the functional status of their patients, may influence some relevant clinical decisions, such admitting a patient to an ICU, or deciding an aggressive treatment or DNR (do not resuscitate) orders. In our study some amount of over-diagnosis of disability is found, and we are afraid this could negatively influence the access of some patients who are not disable to certain diagnostic or therapeutic procedures.

**Please see discussion section, first paragraph and references 22 to 27**

13. The conclusion that the annotation of 2 ADL on the medical record enhances the functional status is false. It just indicates concern on the part of the physician, leading to detailed assessment.

In general, functional data of the clinical history were not written by the same physician interviewed. Therefore we think that the concern on the part of the physician about functional status, may not totally explain the findings. Unfortunately we are not able to offer quantitative data about how many physicians wrote themselves the functional data on the history, so that, according to the reviewer’s indications we have corrected these paragraph.

**Please see corrections in conclusions paragraph (page 16).**

**MINOR ESSENTIAL REVISIONS**

1. The email addresses of four of the authors is the same.

**Please see addresses corrections.**

2. Page 10, the “c” in Colls should be capitalized if it is an author, but reference 20 does not show Colls as an author. Do you mean colleagues?

**Please see correction in page 11, third paragraph.**

3. The authors mention frequently that no data exists about this idea. I would suggest that they mention it once or twice, and then just write about their work.

**We have reduced this mention.**
Dr Stuck Comments.

We thank for the comments of Dr Stuck.

1. A main finding of the study is that a physician has a better knowledge about the ADLs of a patient if the medical record contains information on ADLs of this patient. This might be a circular argument if the medical record was written by the same physician. The authors imply that this was not the case, because there is a statement that medical records were typically written by first-year medical residents, and first year medical residents were not included in the study. However, this is only implied and not specifically answered. The authors should exactly report on who did the recording of ADLs in the medical records (providing us with quantitative information), and they should inform in how many cases these were the same physicians they had interviewed.

This study was not primarily designed to examine the differences in medical knowledge of functional status according to the different amount of information shown on the medical record (this was a secondary objective), however we found this finding worth reporting. Therefore we are not able to provide quantitative information on this point. All we can offer is an approximation based on two indirect data. First: The role of the attending physicians in this EDs does not include writing the clinical history (attendings account for 35% of the sample). Second: Spanish ED doctors shift every 8 or 24 hours, and many patients remain in the observation areas time enough to be cared by two or more different doctors. According to the dates and hours, many histories were written by a different physician who works before the last shift (this add 31% different histories more). Overall we conclude that at least 66% of the clinical histories were not written by the physician who answered the questionnaire.

As far as the 9 questionnaires that support this finding is concerned, four of them were taken from an attending (again we don’t expect the attendings to write the history). And five more were taken in the next day the history was written (this is to say that were written by a different resident, because more than 24-hours on-call are illegal in Spain). Therefore we conclude that none of the nine histories that support this finding were written by the same physician.

We know the lack of direct data on this point is a limitation and that is why, according to the referee observation, we have chosen to correct our conclusion, organizing the paragraph to say that an association exists between accurated histories and accurated knowledge of functional status. However, we still argue in the discussion section that this finding could mean that history is a useful instrument to transfer functional information through different physicians, though our study is not sufficient to prove this.

Please see corrections in conclusions paragraph (page 16) and page 15, second paragraph.

2. For data interpretation, the authors should present a Table describing the ADL information found in the medical record (for each ADL item, note the number of times this item was mentioned in a record, and in addition, how many times the person was recorded as independent, and how many times as independent. My hypothesis is that notes were typically done in cases of dependency, and not in cases of independency. If my hypothesis is
correct, then this implies a study limitation. As shown in Table 2, physicians were quite
good at detecting an existing dependence (the problem was over-diagnosis of dependence),
therefore a better knowledge of physicians for dependent patients would be expected.

Dr Stuck’s hypothesis is right: according to table 2 we present now, lack of functional
data in the clinical history is bigger in patients with no functional problems, which
implies that physicians tend to write ADL data just in disabled patients. However this
may not imply a study limitation, our reading of this finding is that considerable lack of
functional information exists in all groups of clinical histories (even in the 40% of the
clinical histories from seriously disabled patients). Moreover, lack of functional
information in clinical histories of those patients who are not disable may be also a
dangerous problem in the ED. We have shown that some physicians over-diagnose
disability in some independent patients. Others have proven that the physicians
impression of patient functional status may influence important decisions like DNR (do
not resuscitate) orders or admission to ICUs (intensive care units) –see new references
22-27-. Altogether it means that independent patients with no functional data on their
clinical histories are at some risk of not being put forward for certain diagnostic or
therapeutic procedures. Therefore we consider important to write ADLs information in
clinical histories of all kind of elderly patient, in order to better guide the decision
making-process at the ED.

Please see new table 2 and page 10, second paragraph.

MINOR ESSENTIAL REVISIONS

1. page 6, first paragraph. I do not understand this paragraph. The sentence “Once the
patients had been selected” is unclear, and it is not clear what happened with the random
numbers.

Please see correction in page 6, second paragraph.

2. page 7, first paragraph: the definition of dependence is not given. Is this dependent on
need for human assistance for performing an activity?
Yes, the need for human assistance is the definition of dependence for walking section of
Barthel’s index, but Katz’s index has an especific concept of dependence for each ADL,
defined by the author and based on the amount of the human assistance.

Please see page 7, fourth paragraph.

3. page 7 last paragraph: it is not clear what is implied with “essentially all the
respondents”
According to the reviewer we have deleted the word “essentially” in order to get a more
understandable sentence.

Please see page 8, second paragraph.
4. page 8 top: it is not clear why in the methods section it is stated that there were notes on aspects such as amputation, prosthetic device. The authors should only report the methods for aspects that are used in the present study.

According to the reviewer suggestion we have deleted this information.

Please note that the information has been deleted from page 8, second paragraph.

5. page 8 second paragraph: It should be clarified, whether 90 participants and 90 physicians implied 90 pairs.

According to the reviewer’s suggestion we have clarified this point.

Please see correction in page 8, third paragraph.

6. Table 1: Katz partially dependent should be added and defined. Unfortunately we cannot define “partially dependent” for ADLs. It is an informal concept frequently used in Spanish EDs by non-geriatricians.

7. Table 2: Title of the Table in unclear.

Please see correction in now table 3 title.