Author's response to reviews

Title: Diagnosing delirium in elderly Thai patients: utilization of the CAM algorithm

Authors:

Nahathai Wongpakaran (nkuntawo@med.cmu.ac.th)
Tinakon Wongpakaran (tchanob@med.cmu.ac.th)
Putipong Bookamana (scipbkkm@chiangmai.ac.th)
Manee Pinyopornpanish (mpinyopo@med.cmu.ac.th)
Benchalak Maneeton (bkhongsa@med.cmu.ac.th)
Peerasak Lerttrakarnnon (plertra@med.cmu.ac.th)
Kasem Uttawichai (kuttawic@med.cmu.ac.th)
Surin Jiraniramai (sjiranir@med.cmu.ac.th)

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Author's response to reviews: see over
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Re: 1st manuscript draft, and submission of manuscript version 2

Dear Editor,

Below are our responses, point-by-point, to the reviewers’ comments on the 1st draft of our manuscript (dated 18 August 2010) entitled, ‘Diagnosing delirium in elderly Thai patients: utilization of the CAM algorithm’. We have also sent you a revised manuscript (version 2, date 13th March 2011) for your consideration.

Reviewer: Dimitrios Adamis

Reviewer's report:

Minor Essential Revisions

1. Page 4 at the end of 1st paragraph: (ref). I think the authors have omitted to write the references numbers.

A1 We would like to thank the reviewer for drawing our attention to this error. We have already cited the reference [by comment A1] as suggested.

2. Page 6, subjects and procedures: I suppose the authors here need to clarify how the selection of patients was done. Were they consecutive patients or they have been enrolled after screening and referral? This because the prevalence of delirium was quite high (56.1%), which means that maybe a selection bias towards delirium may exists in the sample and this may affect the false positive and negative values.

A2 We thank the reviewer for this comment. In response to this, we added the following text: ‘The nurse was given a list of each day’s newly enrolled patients (with no diagnostic information included) and then randomly selected a small number of names each day from the list, for selection. After investigation, if the patients chosen turned out to have a previously diagnosed delirium condition, they were then excluded from taking part in the study.’ on Participants and procedures section [by comment A2] as suggested.

Reviewer: Allan House

Reviewer's report:
Q1: It isn't clear who the family physicians were, where they came from. Are they typical? One doubts it given the time they devoted to this research. Why did they participate? The answer will influence our views on generalisability.

B1: First of all we would like to thank you for raising these points.

On the reviewer’s first three points, it helps to explain the Thai context. In Thailand as well as in most Asian countries, we do not have the concept of ‘family physicians’ in a practical sense. Doctors see patients in hospital, and on occasion carry out outreach work within communities as part of an outreach community team. As a result, there were no ‘family physicians’ to use for the study. The physicians we did use are staff from the Department of Family Medicine at the Faculty of Medicine, Chiang Mai University, whose spend most of their time doing general practitioners work; they see patients in the setting of primary care units (PCUs) under the jurisdiction of the Faculty of Medicine, as, in Thailand these PCUs are models for residency training in Family Medicine. Their work is therefore very typical.

We invited these physicians as they represent a wider group of non-delirium experts, though they play a role teaching residents how to detect delirium in the community. Though CAM can be utilized by non-physicians, one thing we had to consider is that there have been a few reports [ref] of non-physicians using CAM, and the sensitivity turning out to be very low.

We also add the text: “Non-delirium experts we used in this study were staff family physicians from the Department of Family Medicine at the Faculty of Medicine, Chiang Mai University, whose spend most of their time doing general practitioners work; they see patients in the setting of primary care units (PCUs) under the jurisdiction of the Faculty of Medicine, as, in Thailand these PCUs are models for residency training in Family Medicine. Most of family physicians see patients in hospital, and on occasion carry out outreach work within communities as part of an outreach community team. We invited these physicians as they represent a wider group of non-delirium experts, though they play a role teaching residents how to detect delirium in the community.” in the Participant and procedure [by comment B1].

Q2: The training was quite intensive - one would be surprised if it did not lead to skills in identifying the target disorder. So the question is: would the trainees have done just as well using clinical judgement after the training as they did using the CAM? In other words, was it the CAM-specific training or the clinical training that was the effective ingredient?

B2: We would like to thank the reviewer for raising this point, and apologize for the language mistake. The CAM training was carried out in compliance with the CAM manual. During this training, we focused on the assessment of CAM specific items and on scoring instructions, rather than the expertise of the doctors involved. Thus, the training was based on ‘how to use CAM and how to score each CAM item’ according to each patient’s clinical manifestation. I am confident that the training improved their use of CAM. However, the diagnoses made by the non-delirium experts were compared with those made by experts in the condition, in line with the gold standard. There was no clinical training carried out as part of the exercise.

We have added the text: ‘During the training, the authors focused on the assessment of CAM specific items and on scoring instructions, rather than the expertise of the doctors involved.'
Thus, the training was based on how to use CAM and how to score each CAM item according to each patient’s clinical manifestation. There was no clinical training regarding delirium given as part of the exercise.’ in the CAM training and inter-rater reliability section [by comment B2].

Q3: The context will have flattered the performance. They were testing diagnostic skills in an acute medical setting where 25% of the participants had dementia and 50% were delirious, so priors will have been high and the clinicians will have been on the alert. One wouldn't expect such accuracy in routine practice. It isn't clear what the purpose is. The authors haven’t shown that CAM can be used (or would be used) in family practice or in routine general hospital practice. Is this a precursor to a research study on delirium? In which case why isn't it just published as part of the bigger work?

B3: Is this a precursor to a research study on delirium? In which case why isn't it just published as part of the bigger work?

No, the purpose of this study was to assess the effectiveness of CAM when used by non-delirium experts, that is, its ability to help non-delirium experts diagnose the condition. As such, is not part of a wider piece of work on delirium.

The family physicians and psychiatrists used in this research had had no prior role taking care of the patients on a day to day basis. The participants also were randomly selected by a research assistant in this study. The study settings were not acute care unit, but general non-ICU wards. Furthermore the doctors were given no prior notice or information regarding the patients’ delirium conditions.

We also added the text: “Furthermore, the family physicians and psychiatrists used in this research had had no prior experience taking care of the study patients on a day to day basis, and since the participants were randomly selected by a research assistant, the doctors were given no prior notice or information regarding the patients’ conditions, whether they were delirious or otherwise.” into Participants and procedure section by comment B3.

The authors haven’t shown that CAM can be used (or would be used) in family practice or in routine general hospital practice.

We believe that the high levels of sensitivity revealed by the study show that CAM can be used in a family practice or routine general hospital setting, particularly as, in contrast to previous CAM studies, we used physicians as part of the study rather than non-physicians.

We hope that the above revisions satisfy the reviewers and the editorial team. We also have this manuscript edited by a professional English editing service. We thank you for your patience and your positive attitude in considering this manuscript. For any further enquiries, please get back to us. We look forward to hearing from you soon.

Best regards,

Nahathai Wongpakaran, MD