

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Effects of falls prevention interventions on falls outcomes for hospitalized adults: Protocol for a systematic review with meta-analysis
<b>AUTHORS</b>	Slade, Susan; Carey, David; Hill, Anne-Marie; Morris, Meg

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Laura Rice University of Illinois at Urbana-Champaign, USA
<b>REVIEW RETURNED</b>	13-Jun-2017

<b>GENERAL COMMENTS</b>	<p>This paper describes a protocol for performing a systematic review with meta-analysis to examine interventions to manage fall risk among hospitalized adults. This paper examines a very important topic and is well written. Please see my comments below. Thank you for performing this important study.</p> <ol style="list-style-type: none"> <li>1. Page 3 (Strength and limitations): In the 4th bullet point the authors state that they will evaluate fall prevention methods targeted towards “employee-focused education and training systems”. Please clarify this statement. Will the authors evaluate papers that perform interventions to reduce falls among hospital workers themselves or is this referring to studies that describe education programs that are given to hospital workers but focus on preventing falls among patients? If the authors will include studies to prevent falls among hospital workers themselves please provide additional background information related to risk factors for falls, etc.</li> <li>2. Page 8: Why are the authors specifically evaluating the frequency of fractures? Please provide a rationale. Other injuries, such as head injuries, also occur frequently and are also extremely important areas to evaluate.</li> <li>3. Page 9: (Types of participants) Will individuals who use wheelchairs or scooters be excluded from this analysis? Fall interventions are very different for this population and are often excluded from prevention programs or systematic reviews. Please clarify. This however is a very important population to include as little education is available despite comparable or higher fall rates.</li> <li>4. Page 9: Please provide a description of the credentials of the reviewers who will be performing each phase of the study.</li> <li>5. Page 12: (Outcome data) The authors might also want to consider collecting data on fear of falling. While this is not as critically important as community based studies, it may still be a factor in the overall health and well-being of your participants.</li> <li>6. Page 14: (Subgroup analysis) Please consider reporting the findings for wheelchair and scooter users separately (as one of the subgroups) as clinicians who work with these individuals often have little evidenced based protocols to follow. If a lack of protocols are found this will shed light on the need to further evaluate this sub-population.</li> </ol>
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<b>REVIEWER</b>	Prof Cathie Sherrington University of Sydney, Australia
<b>REVIEW RETURNED</b>	16-Jun-2017

<b>GENERAL COMMENTS</b>	<p>This is well written study protocol investigating an important topic area.</p> <p>More detail is needed on what this review could add over and above the relevant Cochrane review that is likely to be updated soon.</p> <p>More attention is needed to the statistical analysis section. The results from the trials will probably be primarily rate of falls over an exposure period. Risk ratios (proportion of fallers) will require a loss of information. Mean differences are appropriate for continuous data but not for rates. Meta-analyses of falls studies usually report pooled rate ratios.</p>
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### VERSION 1 – AUTHOR RESPONSE

Comment 1: Page 3 (Strength and limitations): In the 4th bullet point the authors state that they will evaluate fall prevention methods targeted towards “employee-focused education and training systems”. Please clarify this statement. Will the authors evaluate papers that perform interventions to reduce falls among hospital workers themselves or is this referring to studies that describe education programs that are given to hospital workers but focus on preventing falls among patients? If the authors will include studies to prevent falls among hospital workers themselves please provide additional background information related to risk factors for falls, etc.

Responses:

- This has been amended.
- We will not include falls of hospital workers – this review is for patient falls.
- The employee education and training is for patient falls prevention programs and intended as training for staff caring for, or screening, patients.

Comment 2: Page 8: Why are the authors specifically evaluating the frequency of fractures? Please provide a rationale. Other injuries, such as head injuries, also occur frequently and are also extremely important areas to evaluate.

Response:

- This has been amended

Comment 3: Page 9: (Types of participants) Will individuals who use wheelchairs or scooters be excluded from this analysis? Fall interventions are very different for this population and are often excluded from prevention programs or systematic reviews. Please clarify. This however is a very important population to include as little education is available despite comparable or higher fall rates.

Responses:

- All adults who are hospitalised will be included regardless of mode of assistive device.
- We have amended the sub-group analysis section on page 15.

Comment 4: Page 9: Please provide a description of the credentials of the reviewers who will be performing each phase of the study.

Response:

- This has been amended to include members of the research team listed as authors of this manuscript

Comment 5: Page 12: (Outcome data) The authors might also want to consider collecting data on fear of falling. While this is not as critically important as community based studies, it may still be a factor in the overall health and well-being of your participants.

Response:

- This has been amended

Comment 6: Page 14: (Subgroup analysis) Please consider reporting the findings for wheelchair and scooter users separately (as one of the subgroups) as clinicians who work with these individuals often have little evidenced based protocols to follow. If a lack of protocols are found this will shed light on the need to further evaluate this sub-population.

Response:

- Scooter users are typically not used in the hospital setting as defined. We have added wheelchairs to the subgroup analysis.

## Reviewer: 2

Prof Cathie Sherrington

University of Sydney, Australia

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This is well written study protocol investigating an important topic area.

Comment 1: More detail is needed on what this review could add over and above the relevant Cochrane review that is likely to be updated soon.

Responses:

- There is no information about when or if the Cochrane review will be updated and there is no "update pending" notification in Cochrane. The Cochrane policy now is that reviews are updated only if it can be demonstrated that an update is needed. (Section 3 of the Cochrane Handbook for Systematic Reviews of Interventions)
- <http://community.cochrane.org/editorial-and-publishing-policy-resource/cochrane-review-development/cochrane-review-updates>
- The Cochrane review "Cameron et al. Interventions for preventing falls in older people in care facilities and hospitals" combines residential care facilities and hospital settings. Our review is confined to the hospital setting and in addition includes emergency department, operating room, outpatient clinics, inpatient rehabilitation and hospital in the home – these are not included in the Cochrane review.

Comment 2: More attention is needed to the statistical analysis section. The results from the trials will probably be primarily rate of falls over an exposure period. Risk ratios (proportion of fallers) will require a loss of information. Mean differences are appropriate for continuous data but not for rates. Meta-analyses of falls studies usually report pooled rate ratios.

Response:

- This has been amended

**VERSION 2 - REVIEW**

<b>REVIEWER</b>	Laura Rice University of Illinois at Urbana-Champaign, USA
<b>REVIEW RETURNED</b>	18-Aug-2017

<b>GENERAL COMMENTS</b>	all comments have been addressed
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