

# CAHE JC Critically Appraised Article Summary

## Journal Club Details

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<b>Date of submission</b>	2008 September
<b>Journal Club location</b>	Masonic Homes (Physio)
<b>JC Facilitator</b>	Sally Cropper

### Clinical Scenario

Are hip protectors effective in preventing fractured neck of femur in elderly patients who are at risk of falls?

### Review Question/PICO/PACO

- P** Elderly people at risk of falling
- I** Hip protectors
- C** No hip protectors
- O** Fractured neck of femur

### Article/Paper

Parker MJ, Gillespie WJ, Gillespie LD. Hip protectors for preventing hip fractures in older people. Cochrane Database of Systematic Reviews 2005, Issue 3 Art. No. CD 001255.

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<b>Article Methodology:</b>	Systematic Review
<b>Returned JC on:</b>	19 September 2008
<b>By CAHE staff member:</b>	Lucylynn Lizarondo



Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>The review asked a clearly focused question.</p> <p><i>Population:</i> Older people living in the community or in institutional care</p> <p><i>Intervention:</i> Studies that compared the provision of hip protectors with no hip protectors were included in the review.</p> <p><i>Outcomes:</i> incidence of hip fractures, incidence of pubic rami and other pelvic fractures, incidence of other fractures, incidence of reported falls, mortality, acceptance and adherence with wearing protectors, reported complications of use of protectors, cost effectiveness of provision of hip protectors</p>
2	✓			<p>The review included randomised and quasi-randomised controlled trials comparing the use of hip protectors with a control group, which are appropriate study designs when looking into evidence for effectiveness.</p> <p>Is it worth continuing? YES</p>
3	✓			<p>The following databases were searched: Cochrane Bone, Joint and Muscle Trauma Group Specialised Register, the Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, CINAHL, BioMed Central. The reference lists of relevant articles were manually searched. Authors were contacted and ongoing trials identified in the National Research Register Issue and Current Controlled Trials.</p>
4	✓			<p>Two independent authors assessed the methodological quality of the papers included in the review. Differences were resolved by discussion. The main assessment of methodology was the method of randomisation.</p>
5	✓			<p>Results from different studies were pooled in meta-analysis using generic inverse variance. Heterogeneity between trials was tested using a standard chi square test. In cases of heterogeneity, the authors did a subgroup analysis and tested again for heterogeneity. A sensitivity analysis was conducted to explore reasons for variations in the results.</p>

Ques No.	Yes	Can't Tell	No	Comments
6				<p>Results were presented using relative risks and confidence intervals.</p> <p><u>Institutional setting</u></p> <p>The effectiveness of hip protectors in reducing the incidence of hip fractures remains uncertain.</p> <p><u>Community setting</u></p> <ul style="list-style-type: none"> <li>• There is no significant reduction in the occurrence of hip fractures for those who used the hip protectors and those who did not.</li> <li>• Results have shown that hip protectors have no protective effect on pubic ramus and other pelvic fractures. Same results were obtained for other fall related fractures.</li> <li>• It remains unclear whether the use of hip protectors has any impact on the frequency of falls.</li> <li>• There was no evidence that the use of hip protectors had any effect on mortality.</li> <li>• Compliance of individuals, particularly in the long term, was poor.</li> </ul> <p><i>Bottom line result:</i> There is not much evidence on the effectiveness of hip protectors in reducing the incidence of hip fractures in older people following a fall.</p>
7				The results of the meta-analysis seemed precise because of the narrow confidence intervals.
8	✓			The results of the review appear to be applicable in the local setting as the participants in the study represented a wide range of older individuals. Generalisability of the findings is likely to be high.
9	✓			All important outcomes were considered in the review, including cost –effectiveness of hip protectors.
10				<p>This systematic review was carefully and rigorously conducted. It has a good methodological quality. Hence, the evidence provided by this review can be used to inform practice.</p> <p>Whilst there seemed to have a marginally significant effectiveness of hip protectors for <i>institutionalised elderly</i>, the incidence of fractures in older people living in <i>community setting</i> was not reduced by the use of hip protectors. Compliance in wearing this protector is low which may be due to the reported adverse side effects.</p>