

# CAHE JC Critically Appraised Article Summary

## Journal Club criteria

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<b>Date of submission</b>	Pilot 2007
<b>Journal Club location</b>	Noarlunga General Hospital
<b>JC Facilitator</b>	Kelly Vlassopoulos

## Clinical Scenario

Is Allied Health involvement in the ED effective in improving outcomes such as need for admission/ length of time in ED/ cost/patient satisfaction/ quality of life

## Review Question/PICO/PACO

**P** Patients presenting to an Emergency Department (after a fall/musculoskeletal injury/social issues)

**I** Allied health involvement within the Emergency Department

**C** Usual care (only seen by nursing/ medical staff - no AH involvement)

**O** Need for admission/ length of time in ED/ cost/patient satisfaction/ quality of life.

## Article/Paper

Close J, Ellis M, Hooper R, Glucksman E, Jackson S, Swift C. *Prevention of falls in the elderly trial (PROFET): a randomised controlled trial*. Lancet 1999; 353: 93–97

**Article Methodology:** Randomised Controlled Trial

**Returned JC on:** Pilot 2007

**By CAHE staff member:** Matt Sutton



Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p><b>Population</b> Aged 65 years and above, lived in the local community in the UK and attended the accident and emergency department with a primary diagnosis of a fall. All patients who presented in a 6 month period where potentially eligible. Exclusion criteria: cognitive impairment defined as a score on the abbreviated mental test (AMT) of less than 7 and with no regular carer because of difficulties with informed consent and accurate recall of events. Patients, who did not live locally or spoke little or no English, were excluded for practical reasons</p> <p><b>Intervention</b> Participants underwent detailed medical and occupational-therapy assessment and referral to relevant services if indicated. These procedures are explained in sufficient detail in the article. The interventions were carried out in a day hospital.</p> <p><b>Outcomes</b> Rate of falls Hospital visits and admissions post presentation Functional capacity (Barthel Index) Outcomes were assessed up to 1 year post intervention.</p>
2	✓			This study compared an intervention with a control group in which is the most effective way to demonstrate the effect of intervention. Is it worth continuing? <b>Yes</b>
3	✓			<p>Randomisation was by a random-numbers table, a true randomisation procedure. It was stated the list was independent of the investigators, however, this does not necessarily mean the allocation was concealed. Overall, the randomisation process is adequate to maximise the probability that the only difference between the two groups is the intervention of interest.</p> <p>Reviewing the baseline characteristics, it would appear the two groups are appropriately equivalent for the major variables. Are there any other variables that should have been included?</p>
4			✓	It is unreasonable to blind the therapists and probably the participants. However, it is not unreasonable to blind the assessors which would minimise observer bias, a potentially significant bias for studies. Off setting this however is the nature of the outcome measures. Falls were reported by participants, and hospital admission data is a truly objective measure.

Ques No.	Yes	Can't Tell	No	Comments
5			✓	<p>Of the original 184 assigned to the intervention, only 140 (76%) completed the intervention (ie medical and OT assessments).</p> <p>At 12 months, the follow up data was: Intervention=77% and control=77%. It is worth noting that some of the intervention must not have had the OT assessment but were included anyway.</p> <p>It seems reasonable to assume all participants were followed up in the groups they allocated to (Intention to Treat analysis)</p>
6	✓			<p>Follow-up was done by postal questionnaire, which was sent to all participants every 4 months for 1 year after the fall. Information about subsequent falls, fall-related injury, and details of doctor and hospital visits or admissions and degree of function was requested.</p>
7	✓			<p>A power calculation was carried out which estimated a sample size of 352 for a 90% power to detect a 30% reduction in the rate of falls from 2.0 to 1.4 in the intervention group with a probability of <math>p &lt; 0.05</math>. This seems a reasonable effect size, and is in fact of greater power than the standard 80% power to minimise type II error.</p>
8				<p>Results were compared using absolute numbers, percentages and changes in mean scores of Barthel Index. Statistically significance was shown with use of p values, confidence intervals and odds ratio's to compare the intervention and the control. Statistical adjustments were made to account for the difference in BI, AMT and previous falls history.</p> <p>There were significantly fewer falls and the risk of falling once or recurrently in the 12-month follow-up period was lower in the intervention group. There where less hospital readmissions for the intervention group, but this was not statistically significant. There was no statistically significant difference in the ability for participants to go out alone compared with baseline.</p>
9				<p>The confidence intervals for the odds ratios of falling fall entirely within the area of effect (i.e. below 1), thus implying we can be reasonably confident in the results. The chance of hospital readmission confidence interval falls slightly outside the area of effect (1.05). This means we are not quite as confident of the effect as for the falls, however, the trend is definitely in favour of the intervention.</p>
10	✓			<p>When interpreting the generalisability of the results, it should be noted that study focused on quite a narrow population sample. However, in the context of falls, this is appropriate, and supported by background literature. Thus, in the context of the elderly being at high-risk for falls, the generalisability is likely to be high. Comments are also provided within the discussion section about the population and applicability of the intervention and results to subjects of different demographics</p>