

CAHE JC Critically Appraised Article Summary

Journal Club criteria

Date of submission	September 2007
Journal Club location	Elderly Care Housing Inc
JC Facilitator	Philippa Robert
JC Presenter	Bronwyn Keller
Clinical Scenario	

Is short-term outpatient treatment better than long-term treatment in community dwelling elderly people who have had a stroke?

Review Question/PICO/PACO

- P** Community dwelling elderly people who have had a stroke
- I** Short-term outpatient treatment (multi-disciplinary)
- C** Long-term outpatient treatment (multi-disciplinary)
- O** Improvement in functional ability

Article/Paper

Lancet, 363: 352-356. 'Rehabilitation therapy services for stroke patients living at home: systematic review of randomised trials', *Outpatient Service Trialists 2004*,

Article Methodology:	Systematic Review
Returned JC on:	2 October 2007
By CAHE staff member:	Mat Prior

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Ques No.	Yes	Can't Tell	No	Comments
1	✓			The article asked a clearly focused research question in determining whether rehabilitation services for patients for CVA patients who had returned home could affect recovery. The population was also well defined (community-dwelling CVA patients; physiotherapists/ occupational therapists/multi-disciplinary).
2	✓			This systematic review included only randomised controlled trials (Methods, p.352). However, for the purposes of their comparisons, this was appropriate. Whilst this represents a high level of evidence (systematic review of RCTs), it should be acknowledged that some potentially valuable literature on the topic may be ignored because it is not an RCT.
3		✓		It is considered very likely that the search strategy used was extensive enough to identify all relevant articles, but the lack of information regarding search terms prevents a conclusive 'Yes' answer being given. However, a reference is provided that may list the search terms ("We used the search strategy developed for the Stroke Group of the Cochrane Collaboration. ⁸ p.352) Other than this, a wide range of databases were searched, which was coupled with hand-searching and reviewing of reference lists.
4	✓			Critical appraisal of the identified articles was undertaken independently by two reviewers, using recognised criteria (Mulrow & Oxman 1997 as cited in Outpatient Service Trialists 2004).
5		✓		Results of most individual studies were not combined; rather results were presented in terms of available ranges. However, it is stated in the methods that binary outcomes were assessed via odds ratios, and that a random effects model was used to take account of heterogeneity. No supporting literature is provided to suggest whether this is a valid technique.

Ques No.	Yes	Can't Tell	No	Comments
6				<p>14 RCTs encompassing 1617 patients were reviewed, none of which specifically pertained to Australia.</p> <p>Overall, therapy for community-dwelling post-stroke patients significantly improved functional ability with respect to many ADLs ($p=0.02$), and significantly limited deterioration ($p=0.009$). However, it should be noted that this is an aggregated finding from data extracted from all studies; in all individual studies, no significant findings were reported (confidence intervals spanning 1 for each individual study in Table: Effects of therapy-based rehabilitation services on poor outcome).</p> <p>Whilst it was not a focus of the authors, for the purposes of the clinical scenario of interest for this appraisal, data can be analysed according to duration of intervention. Short-term interventions can be considered as those lasting less than 12 weeks (approx 3 months), and long-term interventions as those lasting 12 or more weeks. Within the review, only 6 studies can be determined to have investigated 'long-term' interventions; 2 for multi-disciplinary therapies (references 16, 21), and 4 for occupational therapy (references 11,17,19,23). No study reported a significant benefit favouring intervention, however one did border significance (Multi-disciplinary reference 16). Similarly, no short-term outcome displayed significance.</p> <p>Whilst it can be inferred that there was no difference of long-term vs short-term interventions, it should be noted that the primary studies typically did not compare the effect of this variable.</p>
7				<p>Confidence intervals are presented for all studies, along with a summary odds ratio and confidence interval when the results of all studies are considered together (OR 0.72, 95% CI 0.57-0.92). Whilst providing this information adds to the quality of the review, this finding should be interpreted cautiously as no individual study identified a significant result.</p>
8		✓		<p>As aforementioned, all reviewed studies were set outside of Australia, and thus comparisons with both the patient population and health setting may be limited. Moreover, interventions studied may be considerably different than those that are traditionally performed/accepted. The extent to which the results can be applied to a local setting is a decision that is best made by those dealing with each individual setting. However, in accordance with the population of interest for this appraisal, all patients were community dwelling, with a mean age of 70 years (range 55-75.5).</p>

Ques No.	Yes	Can't Tell	No	Comments
9			✓	All important outcomes were not considered. This review focused almost exclusively on functional outcomes as presented within the primary studies (ADLs; improvement or deterioration). However, it is stated that data pertaining to other variables, such as re-admission and quality of life, were incomplete across all studies and thus not comprehensively presented in this systematic review. Cost information is also not presented, however this may be a reflection of the primary studies rather than the systematic review. Moreover, cost has more relevance when comparing service duration, which was not a key feature of this review.
10			✓	<p>If the findings are to be believed, they are of small to moderate size, and thus the clinical importance of these gains is not fully clear. Considering that no study identified a significant benefit in isolation, yet on aggregate a significant benefit of outpatient therapy was identified, the appropriateness of combining the data should be questioned. Moreover, this information was derived from a relatively small number of studies, none of which specifically relate to the Australian healthcare setting.</p> <p>However, it is stated this is one of the few studies of its type, and thus there is a need for further in-depth reviews into the area.</p>