

## iCAHE JC Critical Appraisal Summary

### Journal Club Details

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<b>Date of submission</b>	April 2010
<b>Journal Club location</b>	Western District Health Service
<b>JC Facilitator</b>	Zita Arends & Rebecca Redpath
<b>JC Discipline</b>	Physiotherapy

### Clinical Scenario

Does hydrotherapy lead to better outcomes than land therapy in patients who underwent total hip arthroplasty?

### Review Question/PICO/PACO

- P** Patients with recent primary total hip arthroplasty (THA) for osteoarthritis
- I** hydrotherapy
- C** land-based therapy
- O** pain, ROM, muscle strength, function

### Article/Paper

Giaquinto S, Ciotola E, Dall'Armi V & Margutti F(2010) Hydrotherapy after total hip arthroplasty: A follow-up study. *Archives of Gerontology and Geriatrics*, 50: 92-95.

*Please note: due to copyright regulations CAHE is unable to supply a copy of the critically appraised paper/article. If you are an employee of the South Australian government you can obtain a copy of articles from the [DOHSA librarian](#).*

<b>Article Methodology:</b>	Randomised Controlled Trial
<b>Returned JC on:</b>	2010
<b>By CAHE staff member:</b>	Olivia Thorpe



CONTACTS

[www.unisa.edu.au/cahe](http://www.unisa.edu.au/cahe)

[karen.grimmer-somers](mailto:karen.grimmer-somers@unisa.edu.au)

[@unisa.edu.au](mailto:@unisa.edu.au)

Telephone (08) 8302 2769

Facsimile (08) 8302 2766

University of South Australia

GPO Box 2471

Adelaide SA 5001

Australia

CRICOS Provider Number

001218



University of South Australia

iCAHE

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Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p><b>Did the study ask a clearly focused question?</b></p> <p>The study asked a clearly focused question.</p> <p><i>Participants:</i> Patients with recent primary total hip arthroplasty (THA) for osteoarthritis.</p> <p><i>Intervention:</i> The <u>experimental group</u>: hydrotherapy in a special pool for 40 minutes after 20 minutes of passive joint motion; The <u>control group</u>: land-based therapy for the same duration followed by 'neutral massage' on the hip scar for 20 minutes.</p> <p><i>Outcome:</i> Interviews with the WOMAC (Western Ontario McMasters Universities Osteoarthritis Index) were performed on admission and 6 months later.</p>
2	✓			<p><b>Was this a randomized controlled trial and was it appropriately so?</b></p> <p>This study was a randomized controlled trial which was appropriate to address the research question. Randomised controlled trials are considered to be the 'gold standard' in providing evidence of effectiveness.</p> <p>Is it worth continuing? YES</p>
3		✓		<p><b>Were participants appropriately allocated to intervention and control groups?</b></p> <p>Randomisation was mentioned but not described in any way therefore it is hard to conclude how appropriately the participants were allocated. Baseline characteristics of the groups were similar in terms of age, gender and body mass index, which may indicate successful randomisation of participants.</p>
4	✓			<p><b>Were participants, staff, and study personnel blind to participants' study group?</b></p> <p>A trained physiotherapist, blind from the treatment allocation, performed all WOMAC assessments. It would not have been possible to blind the participants and therapists who administered the treatment.</p>
5			✓	<p><b>Were all of the participants who entered the trial accounted for at its conclusion?</b></p> <p>Six patients were lost at follow-up and have not been included in the analysis. The authors did not report whether this has an impact on the findings.</p>
6	✓			<p><b>Were the participants in all groups followed up and data collected in the same way?</b></p> <p>All participants in both groups were followed up and data collected in the same way.</p>

7		✓	<p><b>Did the study have enough participants to minimize the play of chance?</b></p> <p>No power calculation was carried out. Therefore, it would be difficult to determine if the sample size was adequate.</p>
8			<p><b>How are the results presented and what are the main results?</b></p> <p>Results were presented using graphical representations of median values. P-values have also been computed to determine changes over time.</p> <p><i>Bottom Line Result:</i> Whilst patients for both groups improved, the trial proved that hydrotherapy was a better treatment since pain, stiffness and function impairment emerged to be significantly lower for the hydrotherapy group.</p>
9			<p><b>How precise are these results?</b></p> <p>P-values were provided and these allowed determination of whether significant changes in the status of patient have occurred. It does not, however, indicate precision of results.</p>

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 karen.grimmer-somers  
 @unisa.edu.au  
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