



iCAHE JC Critical Appraisal Summary

Journal Club Details

Journal Club location	Lyell McEwin Hospital – NALHN
JC Facilitator	YongYang Lu
JC Discipline	Occupational Therapy

Question

N/A

Review Question/PICO/PACO

P N/A

I N/A

C N/A

O N/A

Article/Paper

J. Adams, J. Burrige, M. Mullee, A. Hammond, C. Cooper; The clinical effectiveness of static resting splints in early rheumatoid arthritis: a randomized controlled trial, Rheumatology, Volume 47, Issue 10, 1 October 2008, Pages 1548–1553, <https://doi.org/10.1093/rheumatology/ken292>

Article Methodology: Randomized Controlled Trial

Ques No.	Yes	Can't Tell	No	Comments
1	✓			Did the trial address a clearly focused issue? To evaluate the effectiveness of static resting splints in early RA.
2	✓			Was the assignment of patients to treatments randomised? Patients were randomized to the occupational therapy plus splint group or occupational therapy only group using computer-generated random code group allocation cards placed in sealed opaque envelopes. An independent, masked data input operator scanned all data into a statistical database.
3		✓		Were all of the patients who entered the trial properly accounted for at its conclusion? Clinical effectiveness of the splints was analysed by comparing the two groups at 12 months for differences in grip strength, structural impairment, functional dexterity and self-report function and impairment. All outcomes were analysed on an intention to treat basis. Only fully completed self-report MHQ data were entered for analysis (n = 80, 69%). Is it worth continuing? YES
4	✓			Were patients, health workers and study personnel 'blind' to treatment? The study was a prospective, multicentre single-blind randomized controlled trial conducted in the UK. The trial follow-up period was 12 months and measurements were taken at baseline (prior to randomization), and at 12 months by one independent therapy researcher (J.A.) masked to treatment allocation
5	✓			Were the groups similar at the start of the trial? Outpatients aged 18 years and over with a confirmed (or suspected) diagnosis of RA from a consultant rheumatologist using ACR revised criteria, with a disease duration of
6	✓			Aside from the experimental intervention, were the groups treated equally? Clinical effectiveness of the splints was analysed by comparing the two groups at 12 months for differences in grip strength, structural impairment, functional dexterity and self-report function and impairment. There were no substantial clinical differences between groups at study entry in demographic and disease prognostic factors. The majority of patients were women, not currently employed and had left full-time education before 16 years of age. There were no substantial differences between groups for changes in medication and intramuscular steroidal injections over the study duration. There were no losses to follow-up and progress through the trial

CONTACTS

www.unisa.edu.au/cahe
iCAHE@unisa.edu.au
Telephone: +61 8 830 22099
Fax: +61 8 830 22853

University of South Australia
GPO Box 2471
Adelaide SA 5001
Australia

CRICOS Provider Number
00121B



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7	<p>What are the results?</p> <p>No statistically significant differences in the structural impairment and functional hand ability outcomes were found between patients receiving occupational therapy and static resting splints and occupational therapy alone over 12 months. Where clinical significant ranges have already been defined there was no clinically significant difference in functional change between groups. This study indicates that static splinting provides no incremental beneficial effects in improving hand function in early RA</p> <p>Results were not statistically significant for the Primary outcome measures for adjusted difference in grip strength at 12 months between groups (P=0.342) or in percentage of grip strength change over 12 months (P=0.152). For secondary measures the difference in change between groups was also not statistically significant (P=0.01).</p> <p>How large was the treatment effect?</p> <p>There was no significant difference between the two intervention groups.</p> <p>A study sample of 57 patients per group provided 80% power to detect a 50% difference in treatment effect between the two groups, assuming two-sided significance levels of 5%.</p>
8	<p>How precise was the estimate of the treatment effect?</p> <p>95% Confidence intervals and P values were reported.</p>
9	<p>Can the results be applied to the local population? CONTEXT ASSESSMENT (please refer to attached document)</p> <ul style="list-style-type: none"> - Infrastructure - Available workforce (? Need for substitute workforce?) - Patient characteristics - Training and upskilling, accreditation, recognition - Ready access to information sources - Legislative, financial & systems support - Health service system, referral processes and decision-makers - Communication - Best ways of presenting information to different end-users - Availability of relevant equipment - Cultural acceptability of recommendations - Others <p>Journal Club to discuss</p>
10	<p>Were all important outcomes considered?</p>
11	<p>Are the benefits worth the harms and costs?</p>
12	<p>What do the study findings mean to practice (i.e. clinical practice, systems or processes)?</p>

13	What are your next steps? ADOPT, CONTEXTUALISE, ADAPT And then (e.g. evaluate clinical practice against evidence-based recommendations; organise the next four journal club meetings around this topic to build the evidence base; organize training for staff, etc.)
14	What is required to implement these next steps?

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