

iCAHE JC Critical Appraisal Summary

Journal Club Details

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| Date of submission | May 2011 |
| Journal Club location | APA |
| JC Facilitator | Liz Pridham |
| JC Discipline | Physiotherapy |

Clinical Scenario

What is the outcome in adulthood (over 18 years) of babies who were diagnosed with Developmental Hip Dysplasia before 3 months of age and treated with hip abduction splints in the first 6 months?

Article/Paper

Bruras KR, Aukland SM, Markestad T, Sera F, Dezateux C, Rosendahl K (2011) Newborns With Sonographically Dysplastic and Potentially Unstable Hips: 6-Year Follow up. *Pediatrics* 127:3; 661-666.

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](#).

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| Article Methodology: | Randomised Controlled Trial |
| Returned JC on: | May 2010 |
| By CAHE staff member: | Khushnum Pastakia |



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| Ques No. | Yes | Can't Tell | No | Comments |
|----------|-----|------------|----|---|
| 1 | ✓ | | | <p>Did the study asked a clearly focused question?</p> <p>To examine the long term outcome of early abduction splinting versus active sonographic surveillance in newborns with mildly dysplastic hips.</p> |
| 2 | ✓ | | | <p>Was this a randomised controlled trial and was it appropriately so?</p> <p>This is a follow up of a RCT that was conducted 6 years ago.</p> <p>Is it worth continuing: YES</p> |
| 3 | ✓ | | | <p>Were participants appropriately allocated to interventions and control groups?</p> <p>The participants were randomly allocated to immediate abduction treatment or sonographic surveillance groups.</p> |
| 4 | ✓ | | | <p>Were participants, staff and study personnel 'blind' to participants' study group?</p> <p>Due to the nature of the interventions blinding of the participants was not possible. The radiographs were analyzed by a radiographer that was masked to the randomized allocation.</p> |
| 5 | | | ✓ | <p>Were all of the participants who entered the trial accounted for at its conclusion?</p> <p>Of the 128 participants who enrolled for the trial 83 agreed to participate in the six year follow up. 42 were from the treatment group and 41 from the control group. The authors mention that the drop outs could be due to children moving to another region and because the children were otherwise healthy and the parents had been reassured that the hips were normalizing.</p> |
| 6 | ✓ | | | <p>Were the participants in all groups followed up and data collected in the same way?</p> <p>All the participants were invited to participate in the follow up study and a standard radiograph was obtained from each child according to standardized protocol.</p> |

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| 7 | | ✓ | <p>Did the study have enough participants to minimise the play of chance?</p> <p>There is no mention of any statistical analyses to determine whether the number of participants in the study was adequate.</p> |
| 8 | | | <p>How are the results presented and what is the main result?</p> <p>The results are presented in the form of tables and graphs with statistically significance pointed out.</p> <p>Bottom line result:</p> <p>Newborns with mildly dysplastic and potentially unstable hips can have normal hips at 6 years of age with and without the help of early abduction treatment.</p> |
| 9 | | ✓ | <p>How precise are these results?</p> <p>The results are fairly precise as they have used –rays and measured accurate angles off them.</p> |
| 10 | | ✓ | <p>Were all important outcomes considered so the results can be applied?</p> <p>The authors haven't considered any functional measure no have the considered or assessed muscular contribution in dysplastic hip syndrome. Their results are mainly based on physical pathological changes in the X-ray which may not be directly translated into the child's actual functional ability.</p> <p>The finds can be extrapolated to clinical practice but should be co related to the clinical presentation of each patient.</p> |