



## CLUBFOOT IN THE BUSH

The management and outcomes of infants who received their initial Ponseti casting for idiopathic congenital clubfoot in a regional centre compared to those treated exclusively at a tertiary Children's Hospital.



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### Aim

This project aims to evaluate the outcomes of infants who receive initial Ponseti casting in Coffs Harbour, to a group of metropolitan infants who received their initial casting at The Children's Hospital, Westmead (CHW).

### Methods

The study is a retrospective medical record audit. Fourteen infants have received initial Ponseti management at CHHC. A stratified recruitment strategy was used to identify 37 subjects from CHW; matching for age, gender, unilateral/bilateral presentation, and severity of initial presentation. Outcome measures were: the number of casts, age at Achilles tendon (TA) release, post-operative range of passive dorsiflexion (PROM DF), splinting prescription, compliance with splinting regime, the need for further casting or surgery, Dimeglio score, and the Clubfoot Disease Specific Instrument (DSI).

### Results

Analysis of initial Pirani scores shows the groups were matched. Comparison of outcome measures between the two groups was unable to detect *any* statistically significant difference. Median number of casts was six for both groups. Median age for TA release was 7.6 weeks at CHHC, 7.7 weeks at CHW. Median PROM DF was 18.5° at CHHC, 25° at CHW. Median Dimeglio score was 3 at both sites. Median DSI score was 11 at CHHC, 13 at CHW. Splinting was prescribed in 100% of both groups. Both groups experienced some non- and partial compliance, but there was no significant difference detected between the two groups. There was higher need for further surgery in the CHHC group, and for further casting in the CHW group. However, these differences were not statistically significant.

### Conclusions

This study was unable to detect a significant difference in clinical outcome between the CHHC and CHW groups. This result supports the shared care model of Ponseti management of clubfoot, as offered in Coffs Harbour. Clinical equivalence is difficult to prove, hence the study has been extended to a total of 5 years, to increase participants and gain stronger evidence. Further work is necessary to identify which regional sites within NSW should be able to offer initial Ponseti management.

*For the full report on this project visit our website, follow the link to the Rural Research Capacity Building Program and click on 'view completed projects'*

Kay is a specialist paediatric physiotherapist lucky enough to live and work in gorgeous Coffs Harbour. She is passionate that regional children with special needs should have equitable access to health services, achieving the same outcomes as children in metropolitan centres.

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