



## International Conference: Evidence in Global Disability and Health

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## ABSTRACT

**Title:** The Bangladesh clubfoot project: audit of two years outcomes in 400 children and four-year outcomes in 103 children treated with the Ponseti method.

**Abstract text (limited to 300 words, should include background, methods, results and conclusions):**

### Background

Congenital clubfoot deformity causes significant disability, to further impoverish those in developing countries, like Bangladesh. The Ponseti method has been used in Bangladesh by NGO 'Walk For Life' (WFL), since 2009, providing free treatment for >15,000 children. Audits assessed the two-year results in children who began treatment aged <3 years, and the four-year results from one of WFL's 48 clinics.

### Methods

- a. Ten clinics were audited availing 1442 subjects meeting the study criteria, from which 400 children were randomly selected. A specific assessment tool was developed and validated.
- b. Outcomes after 4 years were assessed in 103 children in a designated clinic, with specific inquiry directed at deformity relapse.

### Results

- a. Results for 400 cases treated after 2 years returned:
  - 269 males, 131 females
  - typical clubfeet 79%, 55% bilateral
  - tenotomy rate 79%
  - brace use after two years 85%
  - children could walk (99.0%), run (95.5%), squat (93.3%), manage steps unassisted (93.0%)

Being able to squat correlated with: less casts, good brace use, less relapse, and walking. Relapsing deformity was suspected in approximately 18-20%. Parental satisfaction was high, but a cost of 3000 Taka (\$US 40) was unaffordable by 59%.

- b. Results for 103 cases recently assessed 4 years after treatment returned:
  - 76 boys, 27 girls
  - 98 typical clubfeet
  - 59 had both feet affected, family history in only 9 cases
  - 16 required further treatment (14 were re-cast/brace)
  - Average of 5 casts, 83/103 had tenotomies, 42/103 using maintenance brace.
  - Relapses: 13/103 showed relapse - 4 flexible, 3 forefoot adduction; 6 were fixed
  - Satisfaction, gait, clinical scores - very good; brace use inadequate over time.
  - 74/103 could not have afforded 3000 taka (US\$40)

Monthly earnings and housing were surveyed and categorised. There were four distinct occupation and earning stratas: labourers 16/103, US\$65/month; factory worker 40/103, US\$130/month; teacher 45/103, US\$260/month; doctors 2/103, > US\$260/month.

Housing material, as an indirect measure of affluence, returned: tin 81/103, brick 14/103, mud 6/103, wood/bamboo 2/103.

### **Conclusions**

In 400 children, two years after Ponseti treatment for clubfoot deformity, 99% walked independently.

In 103 children, four years after Ponseti treatment for clubfoot deformity, 13/103 showed relapse.

Without the patronage of WFL, most of these children would not have received treatment, and would be unable to walk.

**Deadline for abstract submission: November 30, 2015**

Please submit your abstract to: [disabilitycentre@lshtm.ac.uk](mailto:disabilitycentre@lshtm.ac.uk)

**Restricted to one first author abstract per participant.**

If you have any questions, please write to:

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