How Do We Rate?
A Method for Comparing Clinical Outcomes for Children with Cerebral Palsy

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Background
A major problem for clinicians is lack of knowledge of how their interventions compare with other physiotherapists’ interventions. Research answers the question: ‘Is treatment A better than treatment B?’ but does not inform clinicians about their own results compared to any benchmark. The CanChild Tabulated Reference Percentiles (Hanna et al, 2008) enable review of a child’s progress against the average for children in the same Gross Motor Function Classification System (GMFCS) Level (Palisano et al, 2007). The change of value across a period of specific intervention enables the effect to be seen against the ‘norm’. This is currently limited to visual inspection of graphs/tables with an approximation of the precise intervention start and end points for each child.

Objective
To develop a system extending to use of Reference Percentiles to numerically calculate the mean percentile change over a course of therapy/intervention so that individual and group results can be easily and accurately determined.

Methodology / Results
A two-way interpolation method of calculating percentiles was developed and verified using all age-appropriate children with cerebral palsy (CP) who had participated in Targeted Training (Major et al, 2001) between 01/08/2009 and 31/07/2013. This allows both numerical and graphical presentation.

Discussion
Mean percentile change for a child or group of children can now be easily compared with the published ‘norm’. Caution must be used when interpreting percentile comparisons since the expected within-child variability in percentiles is substantial.

Conclusions / Implications for Practice
A simple and straightforward method now exists to allow comparison of clinical outcomes in children with CP between physiotherapists, between departments and with reference data. Its use is advocated.

References