

HIPS/24/13 - Longitudinal Profiles Of Lower Limb Range Of Motion In Children With Cerebral Palsy Using Data From The Cerebral Palsy Integrated Pathway Scotland Programme.

Cerebral Palsy (CP) is the most common childhood disability that mainly affects a child's movement and coordination and usually presents with muscle tightness or floppiness. A programme of daily stretches/exercises to encourage muscle strength are given by physiotherapists. As they grow, children's muscles can get tighter and more restrictive, and in some cases, this can affect healthy bone growth.

The Cerebral Palsy Integrated Pathway Scotland (CPIPS) programme holds data for about 95% of children and young people (CYP) with CP in Scotland. They attend one or two CPIPS appointments each year, when physiotherapists record: a) range of movement in the hips, knees and ankles to assess 'flexibility' b) information on their everyday mobility (e.g. wheelchair, frame, independent) and c) whether they take part in sports and other physical activities. The CPIPS database currently holds data from nearly 3000 CYP with CP aged 2-19. This provides a unique opportunity to gain insight of how their muscle and joint characteristics change over time. This information will support decision making of physiotherapists and surgeons and will address the needs of CYP with CP and their parents/carers ('know what to expect').

In this project:

- 1) group discussions with health professionals, CYP with CP and their parents/carers will identify what learning from the CPIPS database would be important to them;
- 2) appropriate data will be extracted and analysed using advanced mathematical methods;
- 3) materials will be developed that explain the study results in a way that is meaningful to CYP with CP and their parents/carers.