The ASPECT Study- E-survey of current international physiotherapy practice for children with ataxia following surgical resection of posterior fossa tumour

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Background
Access to neuro-rehabilitation is recognized as crucial in paediatric neuro-oncology¹ with physiotherapy integral to this; yet there is no consensus as to the type, intensity or timing of interventions. In particular there is a gap in the literature regarding physiotherapy intervention for children with ataxia following surgical resection of posterior fossa tumour. Therefore an e-survey was carried out to provide information regarding current international practice and guide areas of further research.

Objectives
To determine current international practice regarding physiotherapy input for children with posterior fossa tumours.

Methods
An e-survey was developed covering the following domains;
• respondent demographics
• physiotherapy treatment and intervention
• virtual training
• intensity/timing of treatment
• outcomes of physiotherapy treatment.
The e-survey was piloted and refined, then distributed to physiotherapists via 6 key groups; Paediatric Oncology Physiotherapy Network (POPs), Association of Paediatric Physiotherapists (APCP), European Paediatric Neurology Society (EPNS), International Society of Paediatric Oncology (SIOP), Posterior fossa society (PFS) and Pediatric Oncology Special Interest Group (American Physical Therapy Society).

Results
• 84 physiotherapists responded (UK n=53, rest of Europe n=22, USA/Canada n=9).
• 61% of respondents had over 10 years experience in treating children with brain tumours.
• Respondents indicated they used a range of therapy interventions. The most commonly used were balance exercises (n=61), proximal control activities (n=59), gait re-education (n=59) and task specific training (n=54).
• Frequently used adjuncts to treatment were mobility aids and orthotics.
• Three themes were identified regarding challenges to physiotherapy input; condition specific factors (direct medical and treatment related), child and family factors (Psychosocial and expectations/engagement) and physiotherapy delivery factors (lack of evidence and resources).

Conclusions
This e-survey provides an initial scoping review of international physiotherapy practice. It demonstrates the wide range of intervention types used and highlights the lack of clinical evidence in this area. The results raise the need for further research in this field to help with the development of physiotherapy guidelines in children with posterior fossa tumours.


This is a summary of independent research funded by the NIHR Clinical Doctoral research programme. The views expressed are those of the authors and not necessarily those of the NHS, NIHR or the Department of Health.