00109 The Prevalence of Functional Musculoskeletal Deformities in Children With Long Term Neurological Conditions – A Clinical Audit

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Aims: Children with long term neurological conditions (LTNC) have motor and movement disorders which put them at a higher risk of functional musculoskeletal deformities (FMD). This audit aims to examine prevalence of these FMD in motor disorder and rehabilitation clinics.

Methodology: 146 LTNC Patients from complex motor disorder, neuro-rehabilitation and botulinum toxin assessment and treatment clinics between January 2018 and March 2018 were analysed retrospectively (Median age 7years, Standard Deviation 4years 9months). The Gross Motor Function Classification System (GMFCS) was used to determine the severity of motor impairment and the prevalence of musculoskeletal deformities was analysed.

Result: 45.9% of these children had either hip or spine abnormalities where 62.1% were found with scoliosis, 10.8% with hip subluxation and 10.8% with hip dislocations. 34.9% patients were of GMFCS level 5, 9.6% GMFCS level 4, 13.0% GMFCS level 3, 24.7% GMFCS level 2 and 17.8% GMFSC level 1. Examining the level of surveillance, we found that 24.7% had a spinal X-ray, 29.5% had a spinal clinical assessment and 76.0% had a hip X-ray done. Out of which, only 9.59% of these children had their hip X-ray done at or before the recommended age of 2years old.

Conclusion: It is observed that less than half of these children had spine surveillance, even though more than half of the patients who had their spine screened was known to have scoliosis. While only slightly more than three quarters of LTNC patients had hip surveillance, less than a tenth of them had their hip surveillance done at the recommended age of 2. It is imperative that close monitoring is done for these children with LTNC through hip surveillance and earlier referrals. Infrastructural support such as electronic notifications can be added to increase the level of spine and hip surveillance.