Management Of Post Stroke Shoulder Pain: The Uk's First Commissioned Specialised Multidisciplinary Service

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Introduction: Post-stroke shoulder pain (PSSP) is a common challenge in stroke rehabilitation. PSSP is associated with poor rehabilitation outcomes and detrimental impact on stroke survivors' quality of life. Four presentations of PSSP have been identified: frozen shoulder, spasticity, hypotonia and subacromial pain syndrome (SAPS). In April 2023, the first UK multidisciplinary service was established to manage PSSP.

Method: Retrospective cohort analysis of patients in the service between April 2023 to February 2024. Anonymised patient demographic and service outcome data from the hospital's database. Mean and standard deviations for pain on movement (POM) and external rotation passive range of movement (ERPROM) changes from baseline to third appointment were calculated, alongside total patients that achieved a minimally clinical important difference (MCID).

Results: 81 patients assessed. Age 59.71yrs (SD=12.73yrs); Male:female 2.5:1; time since stroke 27.35 months (SD:41.87). The most common PSSP presentation was SAPS (33%) then frozen shoulder (28%). 46% presented with severe POM (=8|13). 70.37% received ultrasound guided intervention. Patients received up to 3 follow-up physiotherapy sessions. Re-assessment at third appointment (n=51; 81.96 days (SD:36.05) from initial): i) reduction in POM of 4.01 points (SD:2.95; p<0.001), with 66.67% achieving a MCID (-5.73 points (SD:1.80). ii) improvement in ERPROM of 15.20° (SD:13.89°; p<0.001) with 78.43% achieving a MCID (18.75° (SD:9.59°)

Conclusion: Significant improvements in POM and ERPROM were made following multidisciplinary intervention for PSSP. These results, alongside qualitative data on patient's service experience (reported separately), provide a framework to inspire national service development to optimise treatment strategies for PSSP and the betterment of stroke rehabilitation.