Implementation of an Upper Limb Pathway to increase activity of the upper limb across two Acute Stroke Recovery Units:

Gaining Recovery in Arm MoBility (GRAB)

Bedfordshire Hospitals NHS Foundation Trust

Wendy Candlin (BSc) ; Amy Souchaud (BSc, MSc)

North West Anglia NHS Foundation Trust

INTRODUCTION

Approximately 70 percent of patients experience upper limb (UL) weakness after stroke (RCP, 2023). The current evidence base recommends stroke patients carry out 3 hours repetitive and intensive practice, alongside 6 hours of activity including task specific practice a day (RCP, 2023). However, current practice in the UK has shown a stark deficit of UL therapy in the practice environment (Stockley et al, 2019).

An evidence- based UL clinical pathway was therefore developed and implemented on two acute Stroke Recovery Units, Site 1 and Site 2. The aim of this service improvement was to increase intensity, improve equity of UL rehabilitation, improve clinical reasoning, upskill and empower therapists to utilise a wide range of evidence- based UL treatment strategies.

METHOD

A retrospective notes audit was carried out at site 1 and site 2, after one year of the UL pathway being in use. The audit aimed to establish the number of patients on the UL pathway, completion of pathway, uptake of treatment strategies, appropriate use of outcome measures and use of UL goals. All patients admitted to the stroke unit were included if identified as having any post stroke UL impairment.

The PARiHS framework (Bergström et al., 2020) was used alongside the PDSA cycle (NHSEI, 2022) to facilitate contextual change and the audit was repeated 6 months later at site 1 .

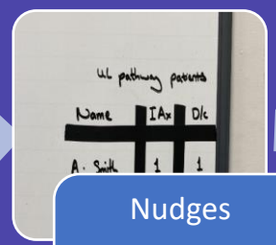
IMPROVEMENTS (SITE 1)

Documentation

- Standardised assessments / new paperwork
- UL ex booklet

Organisation

- Equipment purchased
- UL specific gym "zone" created



Nudges

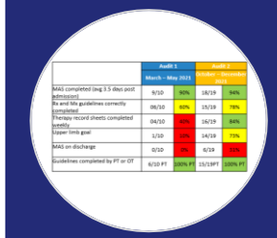
- Visual reminders of pts on pathway
- Equipment "grab boxes" created

Engagement

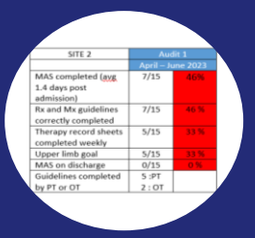
MDT goal setting
UL champions
Training & audit feedback

RESULTS

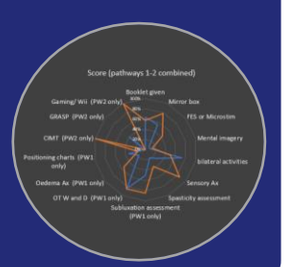
Audit 1 (at site 1 and site 2) initially found poor implementation of the UL pathway into practice. Audit 2 (site 1) showed that further PDSA cycles involving training and environmental redesign improved inclusion, compliance with paperwork and variety of treatment strategies utilised.



	Audit 1	Audit 2
	March - May 2023	October - November 2023
MAS completed (avg 3.5 days post admission)	9/10	16/19
Rx and Mx guidelines correctly completed	08/10	15/19
Therapy record sheets completed weekly	04/10	16/19
Upper limb goal	1/10	14/19
MAS on discharge	0/10	6/19
Guidelines completed by PT or OT	6/10 PT	15/19PT



SITE 2	Audit 1
	April – June 2023
MAS completed (avg 1.4 days post admission)	7/15
Rx and Mx guidelines correctly completed	7/15
Therapy record sheets completed weekly	5/15
Upper limb goal	5/15
MAS on discharge	0/15
Guidelines completed by PT or OT	5 :PT 2 : OT



DISCUSSION AND CONCLUSION

Embedding evidence-based practice into the clinical environment is challenging and requires frameworks, such as PARiHS and PDSA to facilitate the implementation and uptake in a contextually relevant acute stroke unit environment (Kitson et al., 2018, NSHEI, 2022).

Next steps:

Site 1: UL group commenced March 2023 alongside activities to encourage strength, co- ordination and independence with personal care. A daily, afternoon, ward-based session has been introduced at visiting time to improve intensity of therapy, involvement of family/NOK and for the systematic daily application of NMES and sensory stimulation adjuncts.

Site 2: Currently implementing the PARiHS framework and PDSA cycle to increase uptake of the pathway and will repeat the audit in six months. A therapy corner has been developed to increase semi-supervised UL practice on the ward, alongside a twice weekly UL Group. Team building and training videos have been developed to increase engagement.

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Feel free to contact us if you would like anymore information:

Wendy.candlin@bedsft.nhs.uk and amy.souchaud@nhs.net