

Making the cut: Quality of life impacts and wider benefits following upper limb surgery for spasticity management.

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Introduction

A collaborative partnership between Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust (CNTW) and Newcastle Hospitals Trust (NUTH) was initiated in December 2017 to offer a quarterly upper limb surgical assessment clinic (ULSAC) for patients who had complex hand, wrist or elbow problems due to a neurological condition. This was identified as a gap in provision following a small research project looking at knowledge, skill and confidence in paid care staff in managing hygiene of their patients hands.

Patients attending Walkergate Park (WGP) were provided with an opportunity to discuss surgical options as part of their overall management plan. They may already have been receiving botulinum toxin injections or oral medications for spasticity (involuntary muscle tightness), splinting and/or upper limb treatment but continued to have ongoing and residual issues. Some patients had adaptive tendon shortening, joint contractures, skin integrity issues, pain, problems with passive care tasks and reduced confidence which had been ongoing for several years.

The ULSAC is currently staffed by an Advanced Occupational Therapist and a Consultant Hand and Plastic Surgeon.



Method

In 2019 the clinical notes of patients attending the ULSAC between December 2017 and December 2018 were retrospectively reviewed. This identified the gender, range of diagnoses, age, time since diagnosis and any concurrent interventions received by the individual. In addition, information was collected regarding the individual presentations, problems identified, surgical options offered/completed and follow up treatment. A questionnaire was sent to all of these patients asking for feedback about the service including questions around: the information provided, assessment process, decisions made, personal outcomes and how they would improve the service. A follow up focus group was held in order to explore these issues in more detail and to help to develop the service further. The results reflect the data collected using all of these methods.

A total of 21 patients attended the ULSAC during that time. Their neurological diagnoses were: CVA(16), cerebral palsy (4) and childhood meningitis(1). The average age of those attending the clinic was 54 (19-80). 17 of those patients were receiving botulinum toxin injections for their upper limb. The main problems noted by the patient were tightness in their fingers and/or flexion of their elbow.

These caused 6 main issues for the patients:

1. Pain on handling/at rest
2. Hygiene difficult
3. Getting hand open difficult
4. Dressing upper limb difficult
5. Associated reaction when walking
6. Don't like how it looks

"they gave me great support and didn't pressure me to make a decision"

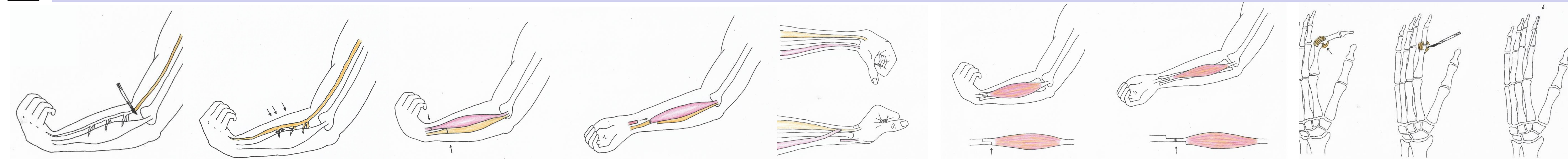
Benefits of surgery

*Looks more normal
Easier to get hand open and cleaned
Easier to cut nails,
Less pain
Easier getting dressed
Not as self conscious
Able to get wedding ring on*

Results

Patients identified that they wanted more information about their surgical options and wanted outcome measures which demonstrated practical improvements. We worked together to design leaflets, film information videos and choose the outcome measures which would be used.

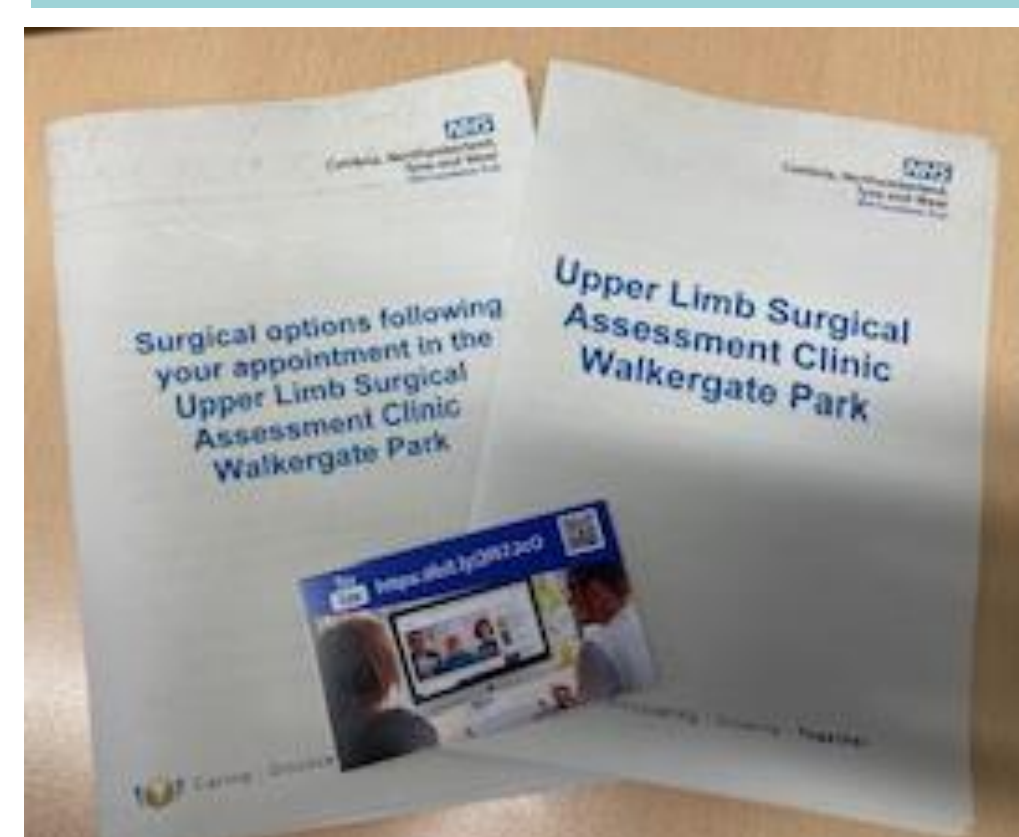
The broad surgery types offered were: hyperselective neurectomy, tendon transfer/lengthening, joint release, examination under anaesthetic.



Since the review the ULSAC:

- Now runs every 2 months with 6 patients seen in each clinic. Total number of patients now seen is: 102
- Outcome measures including photographs are taken pre and post surgery. (ArmA, SQuol 6D, GAS, Pain VAS, Carer burden)
- COVID has impacted on the amount of time between the ULSAC and the patient receiving surgery from 4 ½ months to approx. 11 months.
- A robust pathway developed between the services to reduce unnecessary appointments eg post surgery the patient has their stitches removed at 2 weeks at the acute service and then has final dressings/cast removed and a thermoplastic hand splint made at WGP.
- A range of leaflets have been produced with accompanying videos including one on the patients thoughts on the surgery.
- A paper has been published in the International Journal of Therapy and Rehabilitation Duke L, Stevenson S and Salam S (2022) Quality of life impacts and wider benefits following upper limb surgery for spasticity management. International Journal of Therapy and Rehabilitation 29 (3)
- Research proposal is being developed to review surgery carried out, outcomes, impact on other treatments and cost benefits.

Actions



Videos can be accessed through the QR code



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