Title: Setting up a constraint induced movement therapy service within a community stroke team


Link to repository:
https://repository.nottinghamshirehealthcare.nhs.uk/handle/123456789/3164

Conference name: 13th UK Stroke Forum Conference
Conference date: 4-6 December 2018
Conference location: Telford, United Kingdom

Additional information:
This is a conference poster

Publisher: Stroke Association

Version note:
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Setting up a constraint induced movement therapy service within a community stroke team

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Introduction

Evidence suggests that 80% of stroke survivors have upper limb motor impairments affecting their independence. There is a strong evidence base for using constraint induced movement therapy (CIMT) to improve upper limb function and overcome learned non-use. This intervention restrains the non-affected upper limb, increasing motivation to use the affected limb in functional tasks. NICE guidelines (2013) and RCP (2016) guidelines support the use of CIMT for upper limb rehabilitation following stroke. There has also been a Cochrane literature review which suggests that CIMT is significantly more effective than conventional treatment for improving motor function.

Objective

The Nottinghamshire Community Stroke Team intends to set up a CIMT service.

A pilot of implementing CIMT into the Nottinghamshire county community stroke team was completed to assess the feasibility of application of this into a community setting.

Method

Participants were identified by clinicians, led by the NICE guidelines inclusion criteria:
• 20 degrees of wrist extension
• 10 degrees of finger extension
• Consider falls risk, mood, cognition, PMH, fatigue, carer support

14 day programme based on EXCITE trial (Wolf et al., 2006).

10 days mitt wearing with prescriptive exercise programme. 4 days mitt wearing only ‘rest day’.

Mitt wearing for 90% of waking hours on non-affected upper limb. Agreed tasks where mitt can be removed (safety).

3.5 hours of prescribed repetitive task practice and functional tasks.

Clinicians visited between 1-2 times a week to review programme and shape exercises based on service user requirements. Carers supported with delivery of programme.

Outcome measures used were:
Motor activity log (MAL)
The Chedoke arm and hand activity inventory.

‘Without it (CIMT) I think my right arm would not be as good as it is now’

Results

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<tr>
<th>Participant</th>
<th>MAL - amount of use scale</th>
<th>MAL-how well used scale</th>
<th>Chedoke</th>
<th>Clinical contact (mins)</th>
<th>Prepare Resources (mins)</th>
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<td>Post</td>
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Discussion

Positives
• Improvements to outcomes shown with all participants.
• Clinical preparation time improved as staff have become familiar with resources.
• Using CIMT did not increase clinical contact time requirements compared to usual service.

Challenges
• Only 3 participants identified over a 5 month period due to:
  • Programme criteria
  • Service user upper limb presentation
  • Service user compliance
  • Lack of having a carer/partner to support
  • Balance/safety/cognitive impairments

• Although we prescribed 3.5 hours worth of shaping exercises/functional tasks we cannot ensure that participants were completing that amount of activity.
• Mitt compliance.

Moving forwards
• CIMT is a useful adjunct to upper limb treatment for our community stroke service, however to include more service users modifications may need to be made to the programme.
• Staff training to implement across the service.

References:

Shaping examples


Nottinghamshire Healthcare NHS Foundation Trust

NHS Foundation Trust