A Transdisciplinary Approach to Brain Injury Rehabilitation

Project Lead
Chris Catchpole
Acting Service Manager, Hunter Brain Injury Service HNELHD
Co-Chair NSW Brain Injury Rehabilitation Directorate, ACI
Definitions

**Multidisciplinary**
A team of clinicians from a range of disciplines, who deliver care to address a patient's needs.

**Interdisciplinary**
A multidisciplinary team that works collaboratively towards agreed common goals for the patient.

**Transdisciplinary**
A team that works across discipline boundaries to provide patient care as a ‘whole’.
Aim Statement

“Within 6 months, decrease unwanted duplication of clinical assessment (associated with Occupational Therapy), to zero.”

- Unwanted duplication was defined as: a clinical assessment that has been (or will be) completed by another clinician, that is not required to be repeated.
Team members & role

Executive Sponsor
Jonathan Holt  (Director Allied Health, Community and Aged Care Services GNS)

Project Team
Janece Vandenberg  (Case Manager / Speech Pathologist)
Kate Mitchell      (Occupational Therapist)
Rebekah Pickering   (Occupational Therapist)
Jo Anson-Smith      (Occupational Therapist)

Consumer Input
Patient and family feedback received throughout the project, through individual consultation and surveys.
Patient Story

- Mr B (56 M) sustained a severe TBI following a home invasion in 2014. Mr B was initially treated in Sydney and discharged home to rural NSW. Mr B was referred to the Hunter Brain Injury Service (HBIS) for review of his: balance, intermittent dizziness, blurred vision, reduced short-term memory, word finding difficulties, and changes in mood.

- Mr B was admitted to our Transitional Living Unit (inpatient) for assessment and rehabilitation, due to issues with travel (he lived 2 hours away and did not have a licence). Mr B seen by physiotherapy and OT for community access assessment and was cleared on Day 10 by OT for independent community access (Nb. cleared by physiotherapist on Day 1).

- Feedback from the patient – “I felt like I was in jail”.

NSW Government Health Hunter New England Local Health District
Evidence of a Problem

Feedback from stakeholders

• Patients - “same assessments repeated by different therapists”
• Staff - workload management issues (OT); OT role crosses over with a number of the other disciplines

Clinical note audit

• Unwanted duplication of assessments completed by OT and other disciplines
  – Community Access: 15% of assessments were duplicated
  – Upper Limb assessment: 50% of all assessments were duplicated

Waiting list (OT)

• Longer waitlist for OT, than the rest of the team
  – Average wait time for OT assessment (25 days)
Cause and effect diagram

Physiotherapy Overlap
- Community Access
- Upper Limb Assessment
- Upper Limb Treatment
- Visual Screening
- Leisure

Neuropsychology Overlap
- Cognitive Assessment
- Fatigue Management
- Perceptual Screening

Speech Overlap
- Cognitive Therapy
- Communication Therapy
- Technology Use & Retraining
- Vision / Reading
- Computers / Handwriting

Rehab Assistant Overlap
- Functional ADLs
- Community Access
- Upper Limb Therapy
- Computers

Expectations of OT
- LTGS requesting Care Needs
- Expected OT tasks

Communication
- Similar assessments completed within HBIS by other disciplines

Role Definition
- Medical background repeated
- OT therapy too broad

Client Goals
- No clear delineation of shared clinical roles
- OT completes too many assessments

Unwanted Clinical Duplication

NSW Government
Health
Hunter New England Local Health District

Clinical Excellence Commission
Cause of Unwanted Occupational Therapy Clinical Duplication

- Community Access - PT and Rehab Assistant
- Rehab Assistant - screening functional tasks
- Cognitive Assessment - Neuropsychologist
- Upper Limb Treatment - PT and Rehab...
- Upper Limb Assessment - PT
- No clear role definition
- Cognitive Therapy - Speech pathologist
- Cognitive Assessment - Speech Pathologist

Weighted Vote
Cumulative
## Possible solutions

<table>
<thead>
<tr>
<th>Cause of Unwanted Clinical Duplication</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Access: Physio and Rehabilitation Assistant</td>
<td>Development of a transdisciplinary Community Access assessment</td>
</tr>
<tr>
<td>Rehabilitation Assistant: screening functional tasks</td>
<td>Development of transdisciplinary ADL screening checklists for assessment</td>
</tr>
<tr>
<td>Cognitive Assessment: Neuropsychologist</td>
<td>Development of transdisciplinary cognitive screening framework for assessment</td>
</tr>
<tr>
<td>Upper Limb Treatment: Physio and Rehabilitation Assistant</td>
<td>Development of transdisciplinary treatment framework</td>
</tr>
<tr>
<td>Upper Limb Assessment: Physio</td>
<td>Development of transdisciplinary upper limb assessment</td>
</tr>
</tbody>
</table>
1. **Transdisciplinary Community Access Assessment**
   - Development of a standardised Community Access Assessment that incorporates both cognitive and physical aspects of community access.
   - To be used by both Physiotherapy and OT.
   - To be used by Rehabilitation Assistants to screen patients who have already been living in the community and whom have not identified issues with community access.
   - To be used by Rehabilitation Assistants during retraining, to provide standardised feedback to clinicians.
2. ADL Functional Screening Checklist

- Development of standardised functional assessments to screen patients across common ADLs: *meal preparation, showering, shopping, dressing etc.*

- To be used by both OT and Rehabilitation Assistants when assessing a patient’s functional ability.

- Rehabilitation Assistants will use the checklist to provide structured feedback to clinicians on a patient’s functional ability.
3. Transdisciplinary Upper Limb Assessment

- Development of a standardised upper limb assessment that incorporates motor, sensory and functional aspects of upper limb function.

- To be used by both Physiotherapy and OT.

- To coordinate rehabilitation, a shared-care view of the upper limb would be undertaken with the assessment to be carried out by one clinician and a discussion about treatment needs undertaken between both the physiotherapist and OT.
Results and Data

- Reduction in unwanted duplication of Upper Limb assessment: 50% to 0%
- Reduction in unwanted duplication of Community Access assessment: 15% to 0%
Results and Data

• Increase utilisation of Rehabilitation Assistants (*clinician therapy time was substituted*)
  – Community access retraining: 0% to 20%
  – ADL assessment and retraining: 27% to 43%
Results and Data

OT Wait Time (days)

Average OT Wait Time (days)
Results and Data

• **Cost**
  – time costs to complete the project and develop the resources; potential cost savings may occur through increased efficiency of clinical practice.

• **Staff Feedback**
  – Community Access assessment: 80% ‘very helpful’
  – Upper Limb assessment: 80% ‘very helpful’
  – ADL Functional assessments: 66% ‘very helpful’, 33% ‘somewhat helpful’

• **Consumer Feedback**
  – No complaints relating to delayed clinical access
  – No concerns raised about clinical decision making or safety

• **No clinical incidents or adverse events** since intervention
Sustaining Improvement

- **Development of Standardised tools**
  - Community Access assessment
  - Upper Limb assessment
  - ADL functional assessments

- **Clinical Guideline** (Community Access)

- **Model of Care** (embedded into OT usual practice)
Transferability

- **Upper Limb Treatment within HBIS** *(flow on effect with improved communication)*

- Other disciplines within HBIS

- Other Brain Injury Services

- Other Community Health teams
  - Multidisciplinary teams within Community Health often duplicate part or all of their assessments and therefore have the potential to better coordinate patient assessments and interventions to maximise both clinician time and their clinician’s scope of practice.
Learnings

• Patients benefited from more efficient and coordinated clinical care, including increased therapy.
  – *Highlighting benefits of improved patient care helps drive change and maintain gains*

• Clinicians benefited by being able to deliver a more targeted, timely intervention that utilised their skills more fully.
  – *Experiencing individual benefits during a project increases motivation and improves satisfaction*

• Some clinicians were challenged by this change in perspective (and potential expansion of their current scope of practice), however the group’s momentum and perceived benefits allowed progress.
  – *Being inclusive, listening to different perspective and working towards a consensus helps break down resistance*
References


Questions?