Integrated Rehabilitation Services for Traumatic Brain Injury

IRS-TBI

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November 2010

Clinical services and data collection for this presentation were funded by the Accident Compensation Corporation (ACC), Wellington, New Zealand. Views and/or conclusions are those of the author and may not reflect the position of ACC.
• Introduce IRS-TBI contract

• Acute Rehab Co-ordinator (ARC) role

• Live client record and data collection
Integrated Rehabilitation Service for TBI

• Service model for early assessment and integrated rehabilitation
• Service commenced as a three year trial in March 08
• Adults with moderate to severe head injury
• Covers 5 DHBs in top half of North Island
• Evolving
Key Problems with Previous System

• Delays!
• Many points of contact
• Limited communication with the clients family and rehab providers
• Clients being discharged home and then re-presenting
• Some TBI clients being missed
• Poor if any collection of useful data on brain injury
Key Strategies to Solving the Issues

• Organisational systems based on client need
• Develop key relationships (DHB, NSIS, ACC branch, provider)
• Responsiveness
• Single point coordination
• TBI education and information with the families
• Active transition management
• Secure live client record system
• Staff training
What does the Evidence Suggest?

• Early rehab intervention in hospital and post acute is associated with better long term outcomes.

• Coordinated care plans are associated with better outcomes.

(Mackay et al., 1992, Shiel et al., 2001, Greenwood et al., 2005, Turner-Stokes et al., 2005 and Cullen et al., 2007)
• Identification
• Introduce rehab process day 1 of acute admission
• Develop individual patient rehab pathway from the acute service to home or rehab
• To assess, provide support and education
• Confirm medical stability
• To liaise and provide information to the next rehab provider
Working days between injury and enrolment in the Service (days)

- 1 day or less: 71%
- Over 3 days: 16%
- 2 days: 9%
- 3 days: 4%
Time between the determination of medical stability and transition out of acute rehabilitation (days)

- 0-1 Days: 69%
- 2-3 Days: 24%
- 4-5 Days: 1%
- 6-7 Days: 3%
- 10-11 Days: 2%
- 12-13 Days: 1%
Live Client Record

• Two arms

1. Provide live client records; including client goals, rehab plan, clinical notes, protocols, risk matrix, outcome measures etc

2. Collection of data e.g. Injury severity, age, mechanism, length of stay (acute / residential), PTA durations, functional outcomes etc
Mechanism of Injury

- Fall: 30%
- Vehicle: 42%
- Vehicle vs Car: 15%
- Vehicle/Car vs Object: 15%
- Vehicle/Car vs Pedestrian: 7%
- Motorbike: 5%
- Sports Injury: 3%
- Bicycle: 3%
- Asphyxiation: 1%
- Other: 6%
- Assault: 12%
- Self Inflicted: 3%
Gender

F
N=65, 23%

M
N=219, 77%
More Young People in the Service are Male

- >75
- >65 and <=75
- >55 and <=65
- >45 and <=55
- >35 and <=45
- >25 and <=35
- 15-25

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<thead>
<tr>
<th>Age Range</th>
<th>Female (F)</th>
<th>Male (M)</th>
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Ethnicity

- European: 55%
- Maori: 22%
- Asian: 9%
- Pacific Island: 7%
- Other: 6%
- Missing: 1%

Percentages may not sum to 100% due to rounding error.
Where from here??

• Contract runs till March 2011
• Reviewing and presenting on data collected
• Using data to shape future practice