Princess Alexandra Hospital

Prescribing equipment for people with spinal cord injury and obesity: making it work from hospital to community

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Acknowledgement: Emily Allan (SPOT), Sharon Clarke (MASS)

Stats/Figures

- Proportion of individuals in Australia who are overweight or obese = increasing
- 54% adults = overweight or obese (ABS 2008)

- Obesity in adults with disability
  (Chen, Henson, Jackson, & Richards 2005)
- 65.8% of SCI population overweight
- 29.9% of SCI population obese
  (Gupta, White, Sandford, 2005)

MANAGING OBESITY NOW AND PLANNING FOR THE FUTURE

Managing Functional Expectations

Understanding of injury + insight = realistic goal setting
Bariatric client functional outcomes < expected outcome
Comorbid anxiety/depression
(Blackmer & Marshall, 1997)

Consequences:- Reluctance for equipment trials Therapist/Client goal mismatch Costly delays to discharge

Obesity and Spinal Cord Injury

- Background – literature search / functional outcome comparison
- Case Study
- Practical Examples of Equipment prescribed
- Recommendations

Obesity and Inpatient Rehabilitation Outcomes for Patients with Traumatic Spinal Cord Injury (Stenson et al, 2011)

- FIM score comparison b/w admission and discharge
- Conclusion: Obesity is a barrier to meeting self-care and mobility functional goals for pts with paraplegia in SCI rehab.
- Clinical Implications ….
Carer Training / Manual Handling

Consequences:-
- Getting pts to therapy
- Up to 3 carers for t/fs / positioning
- Multiple transfers when trialling equip
- Multidisciplinary collaboration
- Complex care planning
- Intensive and time consuming carer training

Costs / Funding

SCIR funding for equipment
Non recurrent- "one-off" funding
Future implications- replacement

Other costs:-
- Staffing
- Home mods
- Medical complications
- Length of Stay

Equipment trial and prescription

- Choosing for NOW and the FUTURE
- Customisation of equipment
- Adjustability
- Availability to trial
- Assess all items together!

CASE STUDY

- 60 y/o male
- L1 ASIA B paraplegia
- 220 – 180kg during admission
- Social – lives alone, wife in NH, children nearby.

Functional Status

- Self propels w/c but ↓ endurance / shoulder pain → PWC scripted for community accessibility
- 2P hoist transfer
- Independent feeding & grooming tasks
- Uses mobile showerchair → carer assist
- Requires electric bed + rails to dress
- Dependent for bowel/bladder/skin management
- Domestic independence limited by reach
- Unable to car transfer → prevents driving

Equipment Prescription

- Heavy duty mobile showerchair
- Electric bed
- Hoist
- Mattress
- Powerchair
- Overbed table
- Key safe
- Note: Manual wheelchair and pressure cushion scripted by SIU Physio
**Shower commode chair**

**Manual Handling/Hoist and Electric Bed**

**Power Wheelchair**
- SWL
- Width/depth adjustability
- Heavy duty extras
- Customised footplates/armrests
- Costs of freighting
- Carer requirements
- Limits to tilt/recline
- Environmental considerations
- COSTLY!!

**Power Chair cont.**

**Additional Items**
- Mattress- Why required?
- Overbed table-Trials needed
- Key safe- carer needs
- ADL Items- Long reacher

**Case Comparison**

<table>
<thead>
<tr>
<th>Client</th>
<th>Non-bariatric</th>
<th>Bariatric</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 ASIA B</td>
<td>T12 ASIA B</td>
<td></td>
</tr>
<tr>
<td>Length of Stay</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td>FIM Admission</td>
<td>65/126 Motor = 32/91</td>
<td>75/126 Motor = 40/91</td>
</tr>
<tr>
<td>FIM Discharge</td>
<td>69/126 Motor = 36/91</td>
<td>115/126 Motor = 80/91</td>
</tr>
<tr>
<td>Function</td>
<td>Mobility – manual wheelchair and powerchair for outdoor access. Return to driving not addressed. Transfers – 2 person hoist. Self Care- Independent upper body only. DC bladder. Full assistance for bowel therapy and daily skin checks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mobility – independent manual wheelchair, driving for community access Transfers – Independent Self Care - Independent all, including bowel and bladder management</td>
<td></td>
</tr>
</tbody>
</table>

**Power Chair cont.**
**Recommended Conclusions**

- Resource development
  - Bariatric equipment database
    - List helpful websites
  - Equipment trial checklist
  - Tips for prescribers
  - Lifetec database
  - SPOT website

- Equipment wishlist

- Feedback to suppliers

- Community liaison
  - (SPOT; MASS) Peer Reviews

- Team approach

**References**


