Managing agitation during early recovery in adult patients with traumatic brain injury: An international survey

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Introduction

• Agitation is one of the most disruptive sequelae in the early stages of recovery following traumatic brain injury (TBI)
• Approximately 50% of patients with TBI exhibit agitation in early TBI recovery
• There is limited evidence for the efficacy of non-pharmacological and pharmacological interventions for reducing agitation
• Information on current international practice may inform the development of guidelines for managing agitation in TBI care worldwide

Aim

• This worldwide survey investigated how clinicians define, measure and manage agitation during early TBI recovery

Participants

• This survey was distributed to healthcare professionals worldwide working with patients in early TBI recovery who exhibited agitation
• 309 clinicians completed the survey in full, from 34 countries worldwide
• Clinicians worked predominantly as neuropsychologists, occupational therapists, rehabilitation physicians, and nurses
• Clinicians worked mainly in inpatient rehabilitation and acute care settings

Measures

• Online survey distributed via brain injury rehabilitation networks worldwide
• The survey explored:
  1. Type of behaviours associated with agitation
  2. Tools used to measure agitation
  3. Pharmacological and non-pharmacological management of agitation
  4. Resources and training for managing agitation

Results: Defining agitation

• The behaviours clinicians most frequently associated with agitation were verbal and physical aggression, followed by restlessness

![AGITATED BEHAVIOURS](image)

Results: Measuring agitation

• 75% of clinicians reported formally measuring agitation

<table>
<thead>
<tr>
<th>Tools for measuring agitation</th>
<th>% clinicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agitated Behavior Scale (ABS)</td>
<td>39%</td>
</tr>
<tr>
<td>Non-standardised behavioural monitoring</td>
<td>25%</td>
</tr>
<tr>
<td>Rancho Los Amigos Scale (RLAS)</td>
<td>21%</td>
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<tr>
<td>Overt Aggression Scale (OAS)</td>
<td>6%</td>
</tr>
</tbody>
</table>

Results: Managing agitation

• 99% of clinicians reported use of non-pharmacological interventions

<table>
<thead>
<tr>
<th>Examples of non-pharmacological strategies</th>
<th>% clinicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing familiarising information</td>
<td>85%</td>
</tr>
<tr>
<td>Providing orientation cues</td>
<td>82%</td>
</tr>
<tr>
<td>Managing patients in single rooms</td>
<td>81%</td>
</tr>
<tr>
<td>Reducing noise levels</td>
<td>80%</td>
</tr>
<tr>
<td>Lowering bed closer to the floor</td>
<td>75%</td>
</tr>
<tr>
<td>Use of preventative strategies</td>
<td>75%</td>
</tr>
<tr>
<td>Equipping bed with safety rails</td>
<td>71%</td>
</tr>
<tr>
<td>Dimming lights</td>
<td>67%</td>
</tr>
<tr>
<td>Limiting visiting hours</td>
<td>66%</td>
</tr>
<tr>
<td>One-to-one staffing arrangements</td>
<td>65%</td>
</tr>
<tr>
<td>Consistent staffing</td>
<td>63%</td>
</tr>
</tbody>
</table>

90% of clinicians reported use of pharmacological interventions, mainly antipsychotics

Common first-line drugs:
• Quetiapine, propranolol, olanzapine, sodium valproate, trazodone

Commonly avoided drugs:
• Typical antipsychotics (e.g. haloperidol), benzodiazepines, stimulants

Results: Training and guidelines

• Clinicians mainly learnt to manage agitation through:
  1. Peer consultation and supervision (70%)
  2. On-the-job learning (68%)
• 54% of clinicians had written guidelines for managing agitation
• Clinicians with sufficient training and written guidelines had significantly greater confidence in their ability to manage agitation

7/10 clinicians’ average confidence level in managing agitation 52% clinicians satisfied with agitation management in their services

Conclusions

• Clinicians are using a range of interventions; thus, there is an urgent need to evaluate their effectiveness in reducing agitation
• Clinicians with sufficient training and guidelines felt more confident, indicating the value of formalised training and guidelines for managing agitation
• There is a clear need for a consistent, effective and service-wide approach to managing agitation during early recovery in TBI care settings worldwide