

Implementing a consistent behaviour management approach for individuals with behaviours of concern following acute traumatic brain injury (TBI)

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Behaviours of concern such as agitation and aggression are common in the hospital setting after acute TBI, and during post-traumatic amnesia. Behaviours of concern present risks of injury to the person with TBI, to hospital staff, and can be very distressing for family members.

This project aimed to develop and implement a consistent approach to identify and managing behaviours of concern for patients with acute TBI to minimise the use of restraints, minimise Code Black security incidents, and improve patient's progress to rehabilitation with reduced hospital length of stay. This project was conducted across Flinders Medical Centre (FMC) and Royal Adelaide Hospital (RAH) neurosurgery units from September 2017 – June 2019.

Following review of evidence and collaboration with clinicians and experts working in the field of TBI, a comprehensive approach to identification and management of behaviours of concern following acute TBI was developed. This consisted of three components:

1. Identification of behaviours of concern using a TBI Behaviour Scale and Record, adapted from the Overt Behaviour Scale, for the acute hospital setting
2. A TBI – Management of behaviours in the acute phase protocol
3. An Individualised TBI Behaviour Support Plan

A suite of online staff training modules was also developed relating to behavioural changes after brain injury, and behaviour management in the acute phase of TBI.

Following implementation of the comprehensive behaviour management approach after acute TBI, results demonstrated:

- A reduction in use of mechanical restraints by 36% at FMC and 66% at RAH.
- Use of pharmacological medicating restraints reduced by 50% at FMC and 9% at RAH and patients requiring both combined mechanical and pharmacological restraints reduced by 19% at FMC and 22% at RAH.
- Multiple Code Black security incidents reduced at FMC by 38% and there was a reduced length of stay for patients with acute TBI at FMC by an average of 7 days and subsequently, a reduced average admission cost by \$33,402.61.
- At RAH, Code Blacks, admission length of stay and cost remained unchanged, however there was a positive reduction in 1:1 nursing by 12%.

Overall, the results of this project demonstrate that a comprehensive approach to managing behaviours of concern for patients with acute TBI has reduced the use of restraints for patients with acute TBI, and has reduces hospital admission costs. Future research will focus on evidence based behaviour management approaches for patients with TBI across multiple settings, and more broadly for patients in hospital settings.