Developing Occupational Therapy's Role in Discharge Facilitation for the Patient With Traumatic Brain Injury

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Introduction

There is a unique challenge when working with patients with traumatic brain injury (TBI) in the acute care setting. More frequently than in other populations, physical independence is achieved prior to cognitive levels that would allow for safe return to their prior living environment. This often leads to difficult discharge planning. A two-part protocol was created using current evidence, clinical expertise, and care team feedback, to improve current limitations. The first part focused on early discharge planning. The second part focused on increasing the use of evidence-based evaluation and intervention, with occupational therapy (OT) emphasizing functional cognition, and collaborating with physical therapy.

Objectives

- Describe at least 5 components of the patient occupational profile which can assist to inform discharging planning for the patient with traumatic brain injury.
- Describe at least 5 occupational therapy interventions to use in the acute care setting to address functional cognition and support return to home environment.

Background

- About 30 percent of patients with moderate to severe brain injury require some amount of daily assistance following injury.
- The Occupational Therapy Practice Framework suggests areas to be collected for a patient profile, which can assist with preparing for discharge planning
- Literature review supports use of the Allen Cognitive Levels Screen to determine an individual's learning and problem solving abilities which can help to inform decision making for discharge planning
- Evidence-based research guides selection of interventions most appropriate for addressing higher-level cognitive skills for both OT and PT

Methodology

- Methods: Literature review (19 sources), discussion with the care team (physical therapists, occupational therapists, and case management primarily), and clinical judgment
- Population: patients admitted with traumatic brain injury.
- Demographic: Level I Trauma Center in northeastern Pennsylvania.

Results

COMPONENTS OF PATHWAY

- The pathway includes the following: initiation criteria (inclusion, exclusion, cancellation guidelines), goals of evaluation, evaluation/assessment (OT/PT) including patient profile, goal writing, interventions (OT/PT/shared), outcome measures, plan/frequency of treatment, recommendations, education for family and staff, documentation guidelines.

Discussion

A protocol was successfully created with the goal of improving the discharge process and outcomes for patients diagnosed with traumatic brain injury. Barriers include: consistent completion of the patient profile which is hard to track in the electronic medical record, limited staff resources for patient prioritization, staff education, and protocol compliance. Next steps will be to track compliance of the patient profile.

Conclusion

Occupational therapists, in collaboration with the full treatment team, are well suited to play an integral role in facilitating discharge in patients with traumatic brain injury. The outlined protocol standardizes therapy treatment in this patient population to improve quality and consistency of care and elevates OTs role as related to functional cognition. Moving forward, the authors plan to investigate if the protocol is sustainable, as well as if it decreases length of stay or contributes to a change in discharge recommendations.

OT PROTOCOL

- **Patient Profile (completed as early as possible with patient or family)**
  - Premorbid cognitive strengths and weakness, pre-existing neurological conditions, work/student status, ADL status, IADL status, social supports, hobbies
- **Cognitive Assessments**
  - Required every session: Rancho Los Amigos Scale
  - Required if discharging home: Allen Cognitive Levels Screen
  - Optional: CAM-ICU, O-Log, Agitation Behavior Scale
- **Evaluation**
  - ADL performance including sleep, functional cognition, pain, vision, sensation, upper extremity range of motion/strength, motor control, t one, spasticity, coordination, perceptual skills, positioning/splinting
- **Goal Writing**
  - Increase focus on skill-specific and measurable goals for functional cognition
- **Interventions**
  - ADLs including sleep
  - Functional cognition
    - Memory notebooks, pill management, community navigation, home safety, internal/external memory strategies, goal sheet with visual expectations
    - By deficit area:
      - Attention - skill specific training
      - Executive functioning - metacognitive training
      - Mild memory deficits - internal/external compensatory strategies
      - Severe memory deficits - external strategies specific to functional task
  - Vision
  - Upper extremity function
  - Behavioral adaptations: timely feedback, positive rewards, calm approach, routine, accountability
  - Family training

PT PROTOCOL AS RELATED TO SUPPORTING COGNITION

- **Evaluation/Assessments**
  - Required every session: Rancho Los Amigos Scale
- **Interventions**
  - Cognition/Behavioral adaptations: support routine and behavioral management plans, incorporate cognitive tasks into mobility training, focus on dual task training
  - Increase focus on family training as related to above

OT AND PT CONSIDERATIONS FOR DISCHARGE

- **Frequency based on discharge recommendation**
  - Home plan: 5x/week each discipline
- **Recommendations/Referrals**
  - Consider: Home health, PT - vestibular, OT - cognition, concussion clinic for patients who progress to higher Rancho Levels
- **Patient and Family Education**
  - Relevant handouts from OT and PT Toolkit listed including stress management, functional cognition, functional vision, sleep habits
  - Focus on family education regarding confusion/agitation and what to expect
  - Website resources for patients/family diagnosed with brain injury

For references, please see handout.

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