



## A Creative Alternative for Providing Constant Observation on an Acute-Brain-Injury Unit

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### KEY WORDS

*constant observation*

*A performance improvement project to explore creative alternatives to improve the efficiency of constant observation was performed on an acute-brain-injury rehabilitation unit. The goals of the project were to increase opportunities for therapeutic cognitive stimulation among patients, increase nursing satisfaction regarding efficient use of resources to deliver rehabilitative care, decrease constant-observation salary costs, and maintain fall and restraint rates within 10% of baseline. Implementing the project involved developing a new job description (rehabilitation patient companion) and creating a day room where patients receiving constant observation could go between therapies to receive therapeutic cognitive stimulation. The program benefited patients, staff, and the hospital. This project illustrates how a creative alternative to constant observation proves beneficial on many levels and improves the delivery of rehabilitative care to patients with traumatic brain injury.*

Traumatic brain injury (TBI), defined as a blow to the head or a penetrating head injury that disrupts brain function, is a common and devastating injury in the United States. Each year, 1.5 million people sustain a TBI; 50,000 will die, and 80,000 will experience long-term disabilities as a result. Currently, more than 5 million people require lifelong help to perform activities of daily living (ADLs) as a direct consequence of TBI. TBI does not only affect patients; costs to families and society are high. A 1995 study estimated TBI costs total \$60 billion per year (Finkelstein, Corso, & Miller, 2006).

Rehabilitation after an injury is essential for improving outcomes, reducing lifelong disability, and minimizing long-term costs. The pathophysiological changes associated with TBI often pose challenges for members of the healthcare team as they strive to restore function in patients. TBI patients frequently possess a combination of cognitive or behavioral deficits (e.g., difficulties with attention, concentration, and memory) and physical limitations (e.g., difficulties with balance, speech, gait, vision, and coordination) that necessitate inpatient rehabilitative care. In addition, one study found that 51% of patients recovering from TBI experienced agitation (Kadyan et al., 2004).

Agitation is characterized by restlessness, mood swings, aggressiveness, and impulsivity. Impaired thinking and emotion among patients with TBI often potentiates this agitation, resulting in unsafe or impulsive behavior and wandering. Many patients with TBI are referred from the acute-care setting to a rehabilitation setting for continued therapies that address these deficits. The goal of rehabilitation is to improve these deficits and behavior problems while providing a safe environment for patients and staff.

Historically, a combination of restraints and medications were used to address agitation and behavior problems and to ensure patient and staff safety. Initiatives to decrease restraint use introduced by regulatory agencies such as the Joint Commission (Joint Commission on Accreditation of Healthcare Organizations, 2005) and the Centers for Medicare & Medicaid Services provoked healthcare providers to consider alternatives for safe care. In addition, research on restraint use indicates these measures are ineffective, may cause more severe injury or death (Evans, Wood, & Lambert, 2003), and may hinder progress toward recovery. As an alternative to medications and restraints, many rehabilitation facilities have used constant observation as a strategy to keep patients safe. *Constant observation* is defined as an increased level of observation to assure patient safety and well-being (Moore, Berman, Knight, & Devine, 1995). Typically, constant observation is provided by a member of the nursing staff who is assigned to continuously observe patients. Although this technique meets the rehabilitation goal of safety, it fails to provide the stimulation or therapeutic interaction that could help patients meet other rehabilitation goals. In a 21-bed brain injury unit (one service of a 68-bed rehabilitation institute), different solutions for constant observation were explored. The purpose of this article is to describe the alternatives and identify ways in which they met the needs of patients, staff, and the hospital.

### Identifying the Issue

First, the trends in constant observation on the brain injury unit were analyzed. The unit admits patients age 13 and older. The majority of patients (80%) are admitted with TBI. Other diagnoses include neoplasms, encephalopathy, and anoxic

# A Creative Alternative for Providing Constant Observation on an Acute-Brain-Injury Unit

brain injury. In 2005, the unit provided 15,221 hours of constant observation using a total of 7.3 full-time equivalents (FTEs). In 2006, constant observation increased to 19,608 hours, utilizing 9.4 FTEs, a 22% increase. It became evident that a significant portion of the unit's budget was being spent on a service that did not make efficient use of staff or provide rehabilitative benefits to patients. As a result, a unit-based performance improvement program was developed to address this issue.

## Development

The first step in developing the performance improvement project "Improving Efficiency of Constant Observation on a Brain Injury Unit" was to identify key stakeholders and others who could provide insight into how to address the issue. Key stakeholders included the nursing director, manager, and clinical nurse specialist (CNS) for the brain injury rehabilitation unit. Others who contributed information about the feasibility of the project included a CNS from critical care and members of the rehabilitation unit nursing staff, which included registered nurses (RNs), licensed practical nurses (LPNs), and assistive staff. To benchmark concepts and generate ideas, the administrative staff called several rehabilitation facilities across the country to query them regarding the use of constant observation and alternatives. It was reassuring to find that other organizations were facing many of the same challenges.

The next step was to create specific goals and identify outcomes compatible with the care delivery model of the organization. After much consideration, the key stakeholders identified the following goals: (1) increase opportunities for therapeutic cognitive stimulation among patients; (2) increase nursing staff satisfaction pertaining to efficient use of resources to deliver rehabilitative care; (3) decrease constant observation salary costs; and (4) maintain fall and restraint rates within 10% of baseline.

After determining the goals of the program, the key stakeholders met with the unit staff. All staff including RNs, LPNs, customer care partners (similar to state-tested nursing assistants), and customer support partners (CSPs, who served as ancillary staff) participated in brainstorming sessions that focused on ideas that would improve the efficiency of providing constant observation. Discussions examined the duties of the CSPs and their inability to provide hands-on care. Historically, because the CSP role in providing constant observation mainly was associated with only "observing patients," the common name for the constant observation providers was "sitters." As the word implies, they merely sat and observed,

unable to assist patients to any meaningful degree. Philosophically, the staff liked the concept of the "sitter" becoming a "companion" to patients—someone who not only watches patients to keep them safe, but who also interacts with them and helps them navigate the hospital experience of brain-injury recovery. Group discussions focused on adding direct-care activities to a proposed new job description to meet patient needs in a more timely fashion and decrease the need to call for higher level nursing staff to provide basic care.

Now that a dedicated group of CSPs existed who were familiar with the care needs of patients with brain injuries, the unit decided to create a new position, the rehabilitation patient companion (RPC). This position would make constant observation more efficient and provide opportunities for therapeutic interaction with patients.

In addition to the proposed new job description, the staff discussed creative ways to group patients requiring constant observation. One idea included developing a "day room" that could be supervised by staff in which patients requiring constant observation could spend time involved in cognitively stimulating activities. Coincidentally, the brain injury unit was being renovated in the upcoming months, so the day room was included in the remodeling plans.

## Implementing the Program

After identifying the program goals and devising efficient methods to meet these goals, program implementation began. There were several stages to this process. First, the new job description for CSPs was developed. Second, the plans and details for using a day room were specified.

### *The RPC Role*

When the new RPC position was created, the brain injury unit envisioned someone who would provide constant observation and also serve as a companion to encourage communication with patients throughout their rehabilitation. Also, a patient companion ideally would be able to assist with ADLs and provide some level of basic therapeutic interaction while ensuring the safety of patients and others on the unit.

Administrative staff overseeing the unit wrote the job description for the RPC position, which incorporated the responsibilities identified by the nursing staff. Experience as a CSP or state-tested nursing assistant was a qualification for the new position; additional experience with brain injury or cognitive impairment was preferred. The components of this position were discussed with human resource staff and union representatives (all nonlicensed staff

within the organization have union representation). The new position was approved by all parties and it served as an advancement track for existing CSPs on the unit. All five CSPs were eligible, and they decided to assume the new position.

To orient the RPCs to their new role, the CNS developed an orientation program. All RPCs received 4 hours of classroom instruction and 40 hours of clinical training on the unit. Classroom instruction covered six major areas: hygiene, mobility, safety issues, intake and output, observation and reporting, and initiating and supervising group activities. The functions for each category are listed in **Table 1**. All orientation activities were delivered by the CNS or by RNs from the unit. If an RPC was not comfortable assuming the new role after the orientation period was completed, additional training was provided.

### *The Day Room*

As plans were made for the day room, the stakeholder group needed to identify the type of cognitive stimulation and therapeutic interaction that would be provided in the day room, the people who would provide this stimulation, the person who would oversee RPCs and day room activities, the patients who would be appropriate for day room activities, and the number of hours per day this room would be supervised by RPCs.

To address these issues, all nursing staff, including RPCs, were educated about the roles and responsibilities of the RPC supervising the day room. The RPC assigned to the day room would be responsible for ensuring patient safety and coordinating cognitively stimulating activities. Activities that provided therapeutic cognitive stimulation would include simple games such as card games, bingo, dominos, and Yahtzee. In addition to games, the RPC would engage the patients in reality-based conversations based on current events appearing in the newspaper or on television. During mealtimes, the group ate together in the day room to further enhance socialization and communication.

The charge nurse was responsible for assigning RPCs to the day room and supervising activities. The charge nurse has the big-picture view of activities on the unit, the authority to adjust assignments as workload fluctuates, and the ability to serve as a consistent resource for RPCs.

Every morning, as part of the routine nursing report, night shift nurses would identify patients appropriate for day room activities. This information was relayed to the unit charge nurse, and nursing and day room assignments were made accordingly. Typically, one RPC would be assigned to manage the day room while other RPCs would be assigned to assist patients with morning ADLs and then accompany appropriate patients to the day room. After eligible

**Table 1. Topics Covered in Rehabilitation Patient Companion Orientation**

<p><b>1. Hygiene</b> Mouth care Bathing Dressing Grooming</p> <p><b>2. Mobility</b> Positioning Ambulation Transfers (stand pivot, sit pivot, sliding board, and mechanical lift)</p> <p><b>3. Safety issues</b> Restraint alternatives (seatbelt alarms, bed alarms) Restraints (soft waist, pelvic, extremity, and leather)</p> <p><b>4. Intake and output</b> Feeding patients Measuring intake and output Urinary equipment (connecting, disconnecting, changing urinary equipment, and applying external catheters)</p> <p><b>5. Observation and reporting</b> Observation skills Information to obtain during report Information to report to RNs</p> <p><b>6. Initiating and supervising group activities</b> Diversional activities Simple games and puzzles Therapeutic conversation</p>
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patients were transported to the day room, the RPCs originally assigned to patient care activities could then assist with other unit activities such as linen changes, transporting patients for medical tests, and answering call lights.

Day room activities were provided from 8 am to 8 pm. The goal was to expose as many patients as possible to the day room when appropriate and involve them with group activities between therapy sessions. In the past, patients who required constant observation often returned to their rooms and were supervised by a CSP after therapy sessions. By directing these patients to the day room, they were exposed to additional therapeutic activities while patient safety was ensured; simultaneously, nursing efficiency increased. Initially, patients requiring constant observation were the first to be included in day room activities; as benefits of this program were identified, other patients also were encouraged to participate.

### **Evaluation and Outcomes**

Evaluating the performance improvement project for effectiveness centered on how well the initial goals were satisfied. Increased opportunity for

# A Creative Alternative for Providing Constant Observation on an Acute-Brain-Injury Unit

## Key Practice Points

1. Each year, 1.5 million people sustain a traumatic brain injury (TBI); 50,000 will die, and 80,000 will experience long-term disabilities.
2. Patients with TBI frequently exhibit a combination of cognitive or behavioral deficits (e.g., difficulties with attention, concentration, and memory) and physical limitations (e.g., difficulties with balance, speech, gait, vision, and coordination) that necessitate inpatient rehabilitative care.
3. Impaired thinking and emotion among patients with TBI often potentiates agitation, resulting in unsafe or impulsive behavior and wandering.
4. Creative alternatives to constant observation can improve patient outcomes, improve staff satisfaction, and decrease costs.

cognitive stimulation was evaluated by examining patient functional independence measure (FIM™) gains; nursing staff satisfaction was examined with pre- and postprogram implementation surveys; salary costs associated with constant observation use were evaluated when reviewing the unit budget; and fall and restraints rates before and after program implementation were recorded.

### *Goal 1: Increase Opportunities for Therapeutic Cognitive Stimulation Among Patients*

Initially, patient FIM scores were selected as a primary means to evaluate the effectiveness of the program on patient outcomes. These scores routinely are documented on all patients upon admission to the unit and within 72 hours of discharge. The mean FIM gain (difference between mean admission FIM scores and mean discharge FIM scores) was compared among patients receiving constant observation on the unit both before and after implementation of the program. Mean FIM change scores before program implementation were 32.2, while the mean after-program implementation score was 31.36 (these change scores are not significant). Patients in the two groups were not matched on diagnosis, comorbidities, or other characteristics, so a number of other factors could have influenced the average scores recorded. It is apparent that implementing the program has resulted in a significant increase in patient exposure to therapeutic activities, however. This is witnessed daily as patients spend a majority of their time between therapy sessions in the day room interacting with others.

### *Goal 2: Increase Nursing Staff Satisfaction of Efficient Use of Resources to Deliver Rehabilitative Care*

Anonymous surveys were created and administered to all nursing staff before and after program implementation. These surveys queried nurses about their satisfaction with activities offered to patients, the amount of cognitive stimulation routinely provided for patients, the efficiency of constant observation methods, and the appropriate level of staff required for constant observation. All questions received a more positive response after program implementation as compared to before implementation. Based on the information from these surveys and anecdotal feedback from nursing staff, the program appears to be well received and benefits the ways in which rehabilitative nursing care is delivered within the unit.

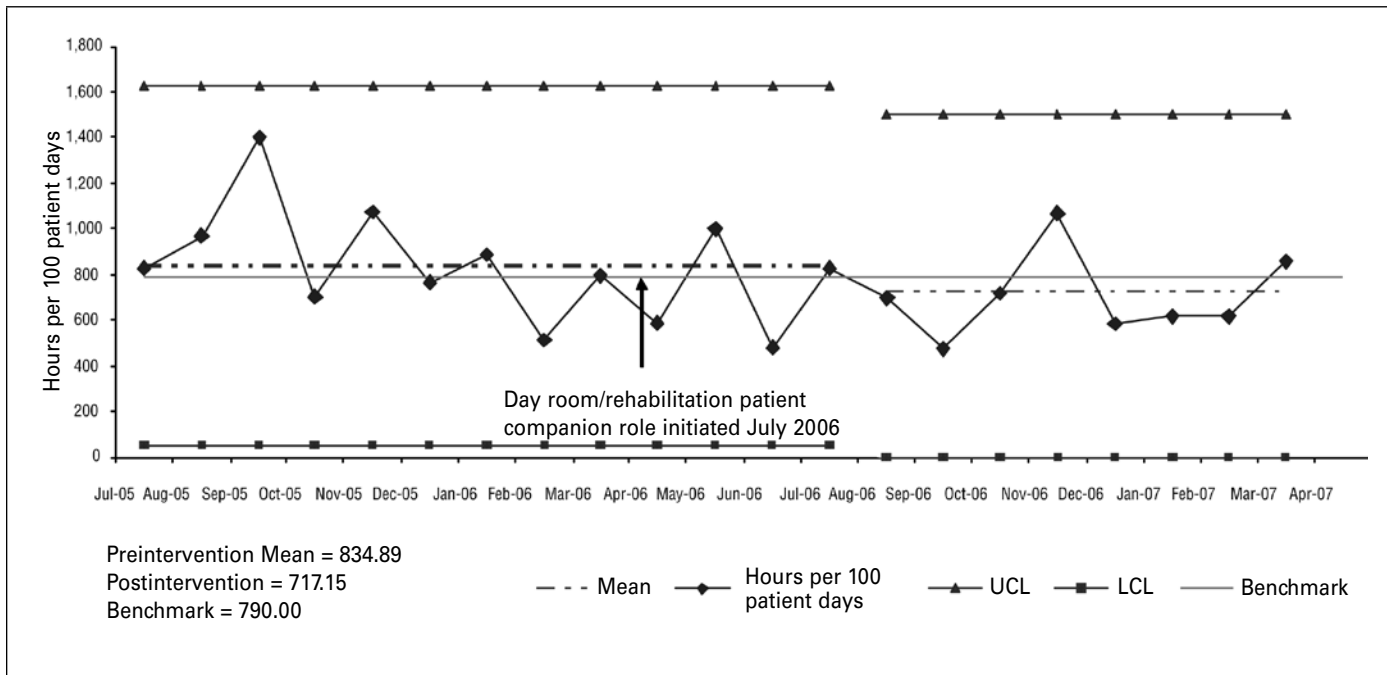
### *Goal 3: Decrease Constant Observation Salary Costs*

As the program was implemented, staffing and costs associated with the use of the new day room for patients who traditionally would have required constant observation were recorded. On average, 59% of the patients on the unit use the day room between 8 am and 4 pm. Of these patients, 21% required constant observation. If these patients had been supervised using the traditional method of constant observation, an additional staff member would have had to be present on the unit during these times. Using the day room as the alternative to constant observation allowed the unit to function on the day shift with one fewer staff member. This resulted in an annual salary savings of \$25,000. An additional cost saving not anticipated during planning resulted from the increased responsibilities and direct-care activities the RPCs were allowed to perform in their new job role. Because RPCs could deliver additional care to patients, their time was better used and patient care was delivered more efficiently. As a result, less staff was needed to deliver routine care on the evening shift, which resulted in an additional annual savings of \$25,000.

### *Goal 4: Maintain Fall and Restraint Rates Within 10% of Baseline*

Since implementing the RPC role and day room, restraint use has decreased and fall rates have been maintained within 11% of baseline. Restraint rates measured the year before implementing the RPC role were 834.9 hours per 100 patient days. These rates after program implementation fell to 717.2 hours per 100 patient days (**Figure 1**). Positive results can be attributed to an increase in patient visibility

**Figure 1. Brain-Injury Rehabilitation Restraint Rates**

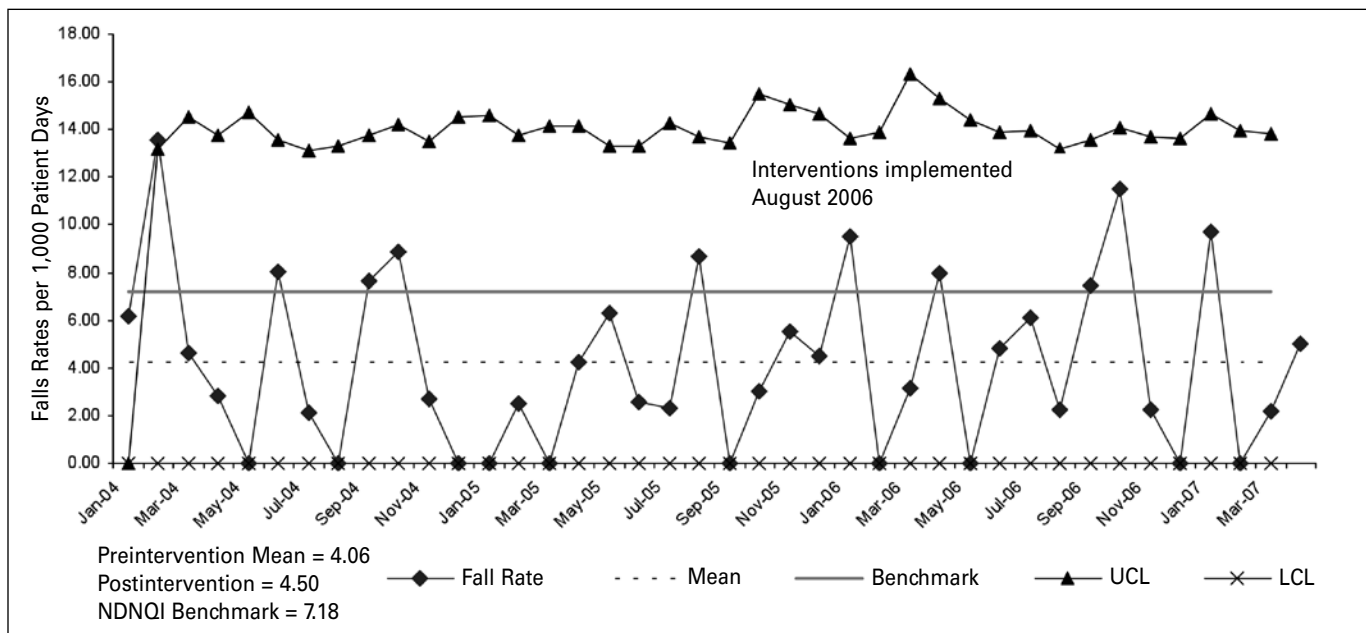


during daytime hours. In addition, the ability for RPCs to provide direct patient care and an increase in interaction with patients may have contributed to a decrease in restraint use. Fall rates before implementation were 4.06 falls per 1,000 patient days, and 4.50 falls per 1,000 patient days after implementation (Figure 2). Fall rates before and after program implementation remain well below the National Databank of Nursing Quality Indicators benchmark of 7.18 falls per 1,000 patient days.

**Discussion**

Performance improvement project challenges included deciding which level of staffing would most cost-effectively provide therapeutic and efficient care to patients with TBI requiring constant observation, deciding which patients were appropriate for participating in the day room/group activities, and transitioning existing staff members into their new job role. Historically, staff members providing constant supervision were only respon-

**Figure 2. Brain-Injury Rehabilitation Patient Fall Rates**



# A Creative Alternative for Providing Constant Observation on an Acute-Brain-Injury Unit

sible for “sitting” with patients; consequently, qualifications and skills were minimal, allowing for a lower salary expense. It was determined that staff members who could provide a variety of patient-care activities as well as provide constant observation would be more economical to the unit. Because they are able to perform more direct-care activities, the number of other staff on two shifts could be decreased.

Identifying an objective tool to determine whether a patient would be appropriate for the group was the second challenge. It was determined that patients with a score of V or above on the Rancho Los Amigos Levels of Cognitive Function Scale would be appropriate. Other specific criteria that were considered included a patient’s ability to tolerate stimulation and the presence of any medical issues that would limit participation. If patients became more restless or agitated with group participation, they would be taken back to their room and traditional methods of constant observation would be provided. Patients who appeared to benefit most from day room activities were those on constant observation who were Level VI or higher on the Rancho Los Amigos Cognitive Scale. The reason for this was that the Rehab Patient Companions (RPCs) often found these patients were able to follow simple directions, show carryover of learned tasks, and interact more appropriately in social situations. In addition, the day room was beneficial to other patients who were not on constant observation. These patients voluntarily would join the group and participate in activities or socialize. This often created camaraderie between patients, which was not anticipated.

The third challenge focused on the RPC role transition and ways to manage workflow. Transition to the RPC role varied among the CSPs. New skills were mastered at different intervals, which made assignments more difficult. Without RPCs to mentor or precept new staff, it took longer to assume daily responsibilities. Concerns surrounding workflow included determining who would attend to the needs of patients while they were in the day room; these needs included toileting, transporting to therapies and appointments, rest periods, and monitoring patients when they were not in the day room. It was determined that the best solution was to have RPCs not assigned to the day room responsible for all other patient care needs. Communicating patient-care needs was handled via a two-way radio. In addition, the charge nurse would ensure the day room RPC was relieved for breaks and lunch and provided assistance if the groups became large.

Although initiating this project was more time consuming and labor intensive than expected, the program has evolved over time. The biggest chal-

lenge was changing the culture of “sitting” and observing to a culture of interaction and provision of care. Overall, implementing the project has proven beneficial for patients, nursing staff, and the hospital organization. Patients on the unit now receive more cognitively stimulating activities in addition to their routine therapy sessions. By creating the new position of an RPC, customer support staff were given the opportunity to advance their skills and contribute more to direct patient care. Creating the RPC role made more efficient use of the nursing support staff, which resulted in improved satisfaction among nurses on the unit. Finally, combining the use of the day room with the RPC role met the needs of the hospital organization. By making more efficient use of the nursing staff, the unit was able to demonstrate how the program improved the unit’s salary expenses while meeting the rehabilitation goal of ensuring patient safety. This project illustrates how a creative alternative to constant observation proves beneficial on many levels and has the potential to improve the delivery of rehabilitative care to patients with TBI.

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**continued on page 23**

# A Creative Alternative for Providing Constant Observation on an Acute-Brain-Injury Unit

*continued from page 16*

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