

## A Fumbled Handoff to Inpatient Rehab

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### The Case

An 18-year-old man with no significant past medical history sustained a traumatic brain injury after a motor vehicle collision while driving intoxicated. The patient was admitted to a regional trauma center and required a decompressive craniectomy (removal of part of the skull bone) due to brain swelling as a result of his injury. He survived, but required prolonged care in the adult trauma intensive care unit (ICU).

His neurologic status remained poor, and he required a tracheostomy due to difficulty weaning from mechanical ventilation as well as placement of a percutaneous endoscopic gastrostomy (PEG) tube for nutrition. After a 3-week hospitalization the patient was transferred to a pediatric acute rehabilitation facility. He was scheduled to return to the trauma center for cranioplasty (repair of the skull defect) in 2 weeks. The plan was for him to continue to be weaned from the ventilator and receive physical and occupational therapy at the rehabilitation facility, likely for a period of several weeks to months.

The patient became increasingly agitated during his rehabilitation stay, and he eventually pulled on and broke his PEG tube. This necessitated a return to interventional radiology at the trauma center for removal of the retained PEG tube bulb. The patient was then admitted to the hospital for cranioplasty. He appeared to be doing well postoperatively and was transferred back to the pediatric acute rehabilitation center on postoperative day 2, which was a Friday afternoon.

The next day (Saturday), he had an acute change in mental status and new onset seizures. He was emergently transferred to the ICU at the pediatric hospital affiliated with the rehabilitation facility—not the adult facility where his surgeries had initially been performed. A stat head CT showed enlarged ventricles and a midline shift, indicating acute hydrocephalus (obstruction of the outflow of cerebrospinal fluid from around the brain). After realizing another surgical procedure would be needed, the patient was then transferred back to the trauma center, where an extraventricular drain was placed. After the procedure, the patient was then transferred back again to the rehabilitation facility, despite concerns on the part of the facility staff about the complexity of the patient's needs.

### The Commentary

by LauraEllen Ashcraft, MSW, and Jeremy M. Kahn, MD, MS

The case demonstrates the many difficulties inherent in the transfer of a patient from the hospital to postacute care. The patient in question had complex care needs due to traumatic brain injury leading to prolonged mechanical ventilation. In the course of his recovery he bounced between multiple acute care hospitals and postacute care facilities, in part because the rehabilitation facility initially charged with his care was unable to manage a patient with his illness severity. This series of fumbles raises two important safety issues regarding transition to postacute care: how we determine which patients go to which types of care facilities and how we manage the handoff itself.

The first issue—which patients go to which facilities—arises because of the many types of postacute care models in the United States. At present we have three major types of inpatient postacute care: long-term acute care hospitals (LTACHs), inpatient rehabilitation facilities (IRFs), and skilled nursing facilities (SNFs). The different facility types are designed for patients of varying levels of complexity, with LTACHs generally caring for the most complex patients and IRFs and SNFs caring for patients of lesser complexity. However, providers receive little guidance regarding which patients should go where, leading not only to variation in postacute care utilization (1), but also to patient–provider mismatch, in which patients may be either transferred to higher capability facilities than necessary (leading to wasted spending) or lower capability facilities than necessary (leading to potential harm). Mismatch apparently occurred in this case, since the 18-year-old patient in question went to a pediatric rehabilitation facility when perhaps an adult LTACH, capable of complex tracheostomy and gastrostomy care in the setting of brain injury, may have better met his needs.

The Centers for Medicare & Medicaid Services (CMS) is attempting to rectify this situation through the Continuity Assessment Record and Evaluation (CARE) Item Set, a multi-item questionnaire designed to quantify each patient's individual postacute care needs.(2) CARE provides an assessment tool for admission to and discharge from postacute care by assessing patient medical, functional, cognitive, and social support status (Table). CARE is still in the validation phase and is not yet ready to be used prospectively to inform transfer decisions. Instead, postacute care facilities use CARE as an initial assessment after transfer. With further development and validation, acute care hospitals may be able to use CARE to assess patients before transfer and determine which facility type best fits patient needs, preventing problems such as those that occurred here.

The second issue—the handling of the transfer itself—is thornier. In this case, the patient appears to have been transferred to a rehabilitation facility prematurely and without effective communication about his care needs. This problem, a lack of care coordination across the acute care spectrum, has no single cause. However, one major problem is almost certainly the lack of financial incentives for care coordination between the hospital and the postacute care facility. At present, acute care and postacute care facilities have few business reasons to ensure that transfers occur at an appropriate time and with relevant communication.

Indeed, the opposite is true. Hospitals in the United States are reimbursed under a system known as "prospective payment," in which they receive a flat rate for each patient based on their diagnosis at discharge.(3) When the costs exceed this payment the hospital incurs a loss, and when the costs fall below

this payment the hospital turns a profit. Thus hospitals are incentivized to get patients out the door as quickly as possible, a process facilitated by the increasing availability of postacute care. Moreover, under traditional prospective payment hospitals are paid for readmissions just as they are for native admissions, such that efforts to prevent readmissions through effective discharge planning may paradoxically lead to decreased revenue.

Recognizing these problems, payers are scrambling to develop novel care models and payment systems that remove these perverse incentives and better encourage hospitals to reduce errors surrounding postacute care transfers. For example, accountable care organizations (ACOs) incentivize care coordination and quality improvement by assigning Medicare beneficiaries to groups of providers that share in any cost savings.<sup>(4)</sup> Another example is bundled payments, in which hospitals and postacute care facilities split a single payment for an episode of care, incentivizing them to coordinate care and reduce readmissions.<sup>(5)</sup> A third example is the Medicare hospital readmission reduction program, which penalizes hospitals that have high readmission rates, creating a financial incentive to coordinate postdischarge care.

Each of these models has great conceptual promise. However, the evidence that they work is limited. For ACOs, early data show a decrease in total postacute spending, particularly in SNFs.<sup>(6)</sup> Bundled payments in California had little or no effect due to difficulty in defining the acute care episode and other regulatory hurdles.<sup>(7)</sup> Data regarding the impacts of the hospital readmission reduction program are still lacking.

As we wait for more data, it is incumbent on clinicians who work in both acute and postacute care to work to ensure smoother care transitions. Hospitalized patients with complex postacute care needs are increasingly commonplace.<sup>(8)</sup> This case demonstrates the harm that may come to these patients as a result of a fragmented care system and outdated payment models. The quality of services and safety of patients are threatened by the lack of transfer coordination and proper assessment. In the future, the CARE Item Set <sup>(9)</sup> will increase in importance as it is used in acute care discharge planning; payment models will shift toward coordination and continuity of care and away from perverse incentives for early discharge. Until these models fully evolve, we can expect these complex patients to ping pong back and forth between hospitals and postacute care facilities, increasing costs while reducing quality and safety.

#### Take-Home Points

- Transitions to postacute care pose important safety risks.
- One reason for these risks is the failure to "right size" postacute care and optimize the timing of transfer, due in part to perverse financial incentives.
- The CARE Item Set and policy efforts to encourage better care transitions are likely to increase the safety of postacute care transfers, but are still in evolution.

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## Table

Table. Items in the Continuity Assessment Record and Evaluation (CARE) Assessment Tool.(9)

Patient Status Domains	Core Items	Timing	Purpose
Medical	Primary Diagnoses, Comorbidities, and Complications	Admission, Discharge, & Expiration	Complexity of patient condition prior to and during stay
	Major Treatments, Medications, Allergies		
	Major Procedures	Discharge & Expiration	
	Skin Integrity	Admission & Discharge	

Pain	Core Self Care		
Functional	Core Functional Mobility	Admission & Discharge	Safety-related functions and self-care
	Supplemental Functional Ability		
Cognitive	Comatose	Admission & Discharge	Contributing factors to patient engagement
	Mental Status		
	Behavioral symptoms		
Social	Mood	Admission & Discharge	Structural barriers to living situation and complications with discharge
	Social Interactions		
	Communication		
	Caregiver Availability		

The CARE Item Set contains four patient status domains for assessment. Each domain requires collection for a set of core items for all patients. The timing of collection allows the postacute care facility to understand changes in patient status throughout the postacute care spectrum. Supplemental Items include condition-specific data collection with the goal to increase standardization across facilities. CARE also collects administrative information including admission, discharge, expiration, care planning, and payment.

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