

Research - R125

Poster

Abstract Title:

Evaluation of Early Transitional Care of the Severely Injured Patient from Trauma Intensive Care to an Acute Rehabilitation Center.

Authors:

Catherine Schell, RN, MSN, ACNP-BC, Nicholas Haskell, MPH, PA-S, Lynn Berger, RN, MSN, ANP-BC, Maria Alisangco, MBA, CSTR

Background & Purpose:

Patients hospitalized with traumatic injury risk significant loss of function without timely and aggressive rehabilitation. Rehabilitation is a critical part in the recovery process of the severely injured patient. The overall goal of acute rehabilitation after traumatic injury is to improve the patient's ability to function at home and in society; despite the residual effects of the injury which may be complex and multifactorial. The aim of this study was to investigate the differences in outcomes of trauma patients transferred directly from the Trauma Intensive Care Unit (TICU) to an Acute Rehabilitation Unit (ARU) versus patients with delayed transfer.

Study/Project Design:

Retrospective cohort study

Setting:

A Level 2 Trauma Center in Southern California.

Sample:

A total of 86 trauma patients, age 65 or less with an Injury Severity Score (ISS) of 16 or greater admitted to an ARU between 2008 and 2012.

Procedures:

The trauma registry was queried for all trauma patients ages 65 or less with an ISS of 16 or greater that were transferred to an ARU from January 1st, 2008 to September 30th, 2012. Medical records were retrospectively evaluated and were stratified by age, gender, comorbidities and ISS. A comparative analysis was conducted to examine the outcomes of patients transferred directly from the TICU to ARU versus those patients transferred from TICU to the Intermediate Care Unit (IMC) then ARU. Outcomes were evaluated and defined by total length of stay (LOS), ARU LOS and Functional independent Measure (FIM) at time of discharge from ARU. All patients who were transferred to an outside rehab facility or did not qualify for ARU secondarily due to funding issues were excluded from this study.

Findings/Results:

Of the 86 patients included in the study, the average ISS on admission was 29, (16-24) 34.3%, (25-40) 45.7%, (41-49) 14.3%, (50-74) 5.7%. There were 28 females and 58 males included in the study with the average age being 36 (range 18 to 64). Mechanism of injury included motor vehicle accident 38.6%, motorcycle 15.7%, all-terrain vehicle 10%, bicycle 1.4%, pedestrian 8.6%, Fall 21.5%, other/nonspecific 1.4%. Less than 5% of the patients in each group had significant comorbidities. Patients (N=37) who were transferred from the TICU to ARU did not show a significant difference in FIM scores upon discharge than to those patients (N=49) who were transferred from the TICU to IMC then ARU (91, 93). The average hospital LOS and ARU LOS in days was lower in the TICU to ARU group (27, 15) compared with the IMC to ARU group (33, 16). The IMC to ARU group had a higher ISS on admission than the TICU to ARU group (31, 28). On average patients who were transferred to IMC did not receive any physical, occupational or speech therapies for 2.5 days secondary to staffing or other patient issues not allowing for therapy. In comparison, no days of therapy were missed in the TICU to ARU group.

Discussion/Conclusions/Implications:

Although the data did not illustrate a significant difference in outcomes between the two groups, early transitional care should be considered to offer the greatest functional recovery for the critically ill trauma patient. Delayed

transfer to the ARU can result in patients not receiving the essential therapies they need to recover. Decreasing the LOS is crucial in minimizing complications associated with prolonged hospital stays as well as financial benefits. Further studies with larger populations are needed and would be beneficial for the development of protocols pertaining to early transfer of the acute trauma patient. Such protocols would ensure a seamless and timely transition to ARU.