

Hospital at Home as a Care Option for TBI Patient with Delirium

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Introduction

University Health, one of the largest public health systems in Texas and a Level I trauma center, is the teaching hospital for UT Health San Antonio. The Hospital at Home program was opened in 2021 and transferred its first patient in July of 2021. This program provides acute-level services in the home for the patients who meet acute inpatient or overnight observation admission criteria for hospital-level care. Within the first year, the program has served over 500 patients.

Multiple effective strategies for treating hospital-acquired delirium have been reported, including the provision of familiar setting and family presence. The University Health took this approach on a step further when the Hospital at Home team took care of the patients with delirium.

Learning Objectives

The purpose of the case study is to evaluate the best and most effective inpatient care setting for improved patient outcomes for patients with delirium and to describe the organizational structure necessary to manage elderly patients in a home setting.

Month (2022)	Average Daily Census
January	6.29
February	5.68
March	7.68
April	6.43
May	8.35
June	8.07
July	6.94
August	8.68
September	12.37

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Hospital at Home Care Team

Case Description

An 85-year-old patient with bilateral subdural hematoma presented to the hospital following a fall and underwent an emergency craniotomy. Following surgery, recovery was complicated by lethargy and increasing delirium that required continuous supervision for the patient's safety. Due to this safety concern, the patient was unable to transition to the next level of care for more intensive rehabilitation. On day sixteen of the patient's inpatient stay, the patient's inpatient primary team determined that the patient may benefit from returning home to continue the care and decrease the patient's delirium. The Hospital at Home care team, in collaboration with the patient's family, provided a safe transition to the home environment to continue comprehensive medical care. Within a few hours of being home, the patient was able to orient to time and location and follow basic commands. The patient was visited at least twice daily by nursing staff, and physical, occupational, and speech therapists in addition to telemedicine visits with providers and ancillary services.

The patient's recovery was prompt medically, mentally, and functionally. After ten days of inpatient care in the home, the patient was discharged to inpatient rehab to continue rehabilitation. The length of stay (39 days) was longer compared to a similar patient in the brick and mortar hospital, however, the cost of care was reduced by 1.5%, as compared to the patient remaining in the brick and mortar hospital. In contrast, patient and family satisfaction was significantly higher.

Impact

Delirium is fairly common and well studied in hospital settings and treatment often includes a multidisciplinary approach, including the provision of a special environment meant to minimize the hospital stressors. Providing medical care for the patient with delirium in a home setting appears to have assisted in the overall recovery as the patient was able to be in their own environment with their family while continuing to receive comprehensive acute medical care. It is important to note that patients who have hospital-acquired delirium that are transitioned to acute care at home require an in-home support system with around-the-clock supervision and support. Nursing and physician support aid in the clearance of the hospital-acquired delirium but a supportive home environment is vital to the successful healing of the patient. Inpatient acute care at home is an opportunity to optimize healing for patients with other impairments such as dementia, intellectual disability, and other cognitive impairments. Continued evaluation of the effectiveness of inpatient care at home may help to lead to alternative treatment options for these patients.

Cost Per Patient Day of a Patient with a TBI

