TITLE:

Recovery Trajectories Following Traumatic Brain Injury

OBJECTIVES:

1. The participant will understand the purpose and use of recovery trajectory analysis and its relevance to provision of treatment following TBI, treatment justification and termination of care decisions.
2. The participant will understand key differences in recovery trajectories associated with different subgroups of severity of disability in TBI.
3. The participant will understand how to use recovery trajectories to predict duration of care episodes after TBI and to evaluate and communicate likelihood of recovery when considering treatment continuation for slower to recover patients.

STATEMENT OF THE PROBLEM:

The CDC estimates that over 1.7 million traumatic brain injuries (TBI) and between 1.6 million and 3.2 million sports-related concussions occur annually in the U.S. These numbers eclipse the number of annual new cancer diagnoses in the U.S., now estimated to be slightly under 1.6 million cases per year. As such, TBI is a major health concern in the United States.

While most major medical conditions have definitive diagnosis, treatment and resolution endpoints, which enable definition and utilization of distinct clinical pathways, such mile markers are not well defined for TBI perhaps due to heterogeneity of TBI. It is difficult to objectively determine whether treatment should be continued and to what endpoint. Health care practices could benefit from greater understanding of recovery trajectories following TBI, in particular, in view of pressures to shorten length of stay (LOS) and movement toward cost containment and treatment conceptualized and provided via care episodes.

Data from over 9,000 subjects included in the TBI Model Systems national database was reviewed using survival analysis techniques. Distinct recovery trajectories for subgroups of individuals with TBI were identified and characterized across time and extent of recovery. The session will describe recovery patterns, including time to and extent of recovery associated with acute rehabilitation services.

The findings of this review provide important information for determination of what may constitute requisite LOS's that differ across subgroups within the larger diagnostic category of TBI. The findings suggest that substantial differences exist between subgroups and constitute an initial foray into exploration of dose-response research in rehabilitative treatment of TBI. The findings have important implications for treatment cessation/continuation as treatment teams must increasingly advocate for and justify each day of treatment provided for individuals with TBI in an era of healthcare reform.

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