NDSC
National Data and Statistical Center
Traumatic Brain Injury Model Systems

Components of the Traumatic Brain Injury Model System Centers

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The National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR) supports the collection of data from participants in the Traumatic Brain Injury (TBI) Model Systems Program, a network of institutions across the country collecting data for research on outcomes after a TBI.

The result of this collaboration is a unique, well-characterized population of subjects with uniformly collected data compiled in the National Database.

As stated in the current Traumatic Brain Injury Model System (TBIMS) Centers Program priority, TBIMS centers must provide "a multidisciplinary system of rehabilitation care specifically designed to meet the needs of individuals with TBI. The system must encompass a continuum of care, including emergency medical services, acute care services, acute medical rehabilitation services, and post-acute services."

There has historically been substantial variability in the components of care within the TBIMS centers and the manner in which these various components interact. The number of acute care hospitals in any one current TBIMS center varies from 1–12, with trauma center designations of Level 1–Level 4. Although not a stated requirement, all current TBIMS Centers include at least one Level 1 trauma center. Relationships with these hospitals range from formal (written affiliation agreements with trauma departments, emergency departments, or hospital administration) to verbal agreements. Faculty from the acute care facilities may or may not be co-investigators within the TBIMS Centers program. In some cases, acute care facilities require their own IRB review and approval and in other cases they do not.

Access to medical records from the referring/acute care hospital also varies. In some cases, staff visit the referring hospital and view records onsite to abstract data. Other hospitals send the medical record in paper or digital form, when a signed release of information request is received.

The TBIMS Centers Program priority requires that a minimum of 35 persons be enrolled annually in the TBIMS National Database by each TBIMS Center. Multiple acute care/referring hospitals may be included in systems of care to increase the annual enrollment of that system, or to increase the representativeness of the sample.

In most cases, participants are transferred directly from referring acute care hospitals to inpatient brain injury rehabilitation facilities (IRFs). Some Centers have incorporated long-term acute care hospitals (LTACHs) into their system of care. Among these Centers, the role of the LTACH is variable. In some Centers, the LTACH serves as the primary and sole rehabilitation setting. In all cases, patients remain within the system of care through discharge from the rehabilitation facility. While all Centers must provide multidisciplinary brain injury rehabilitation services, the number of therapy hours provided per day may vary by setting. All TBIMS Centers are required to follow established protocols for the collection of enrollment and follow-up data on all participants.

Components of a TBI Model System of Care:

Components Commonly Included	Components Less Frequently Included*
• At least one Level 1 trauma center • At least one inpatient rehabilitation hospital • Individual outpatient therapies • Physician follow-up clinic • Neuropsychology follow-up clinic	• Level 2 trauma centers • Day treatment community integration program • Alcohol and substance abuse outpatient therapy • Vocational rehabilitation • Skilled nursing facility • LTACH • Assistive technology • Spasticity/dystonia management clinic • Clubhouse programs

**Existing TBIMS Centers may have anywhere from 2–6 components in their system*

Source

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