Brain Waves

Volume 10, 2012

SUMMARY OF UAB-TBIMS ACTIVITIES (2007 - 2012)

The University of Alabama at Birmingham (UAB has been funded as a Traumatic Brain Injury Model System (TBIMS) since 1998. As a Model System, the UAB-TBIMS serves as one of the national leaders in research and patient care. Over the last 5 years, the UAB-TBIMS conducted activities with 4 primary areas of focus with input from consumers and professionals.

1 – Continuum of Patient Care

The UAB-TBIMS is Alabama's only all-inclusive system for inpatient and outpatient care for people who experience TBI. This offers patients and their families the benefit of a team of professionals who work closely together across all areas of care. UAB provides care from emergency medical services, to acute care in the hospital, to rehabilitation.

Spain Rehabilitation Center (SRC) is the hub for the UAB-TBIMS. SRC treats between 50 and 100 patients with TBI each year. The TBI care team includes:

- doctors (rehabilitation medicine specialists);
- nurses;
- nurse practitioners;
- physical therapists;
- occupational therapists;
- speech/language pathologists;
- neuropsychologists;
- social workers; and
- other UAB Health System professionals if needed.

The UAB-TBIMS' commitment to care also includes following people with TBI after discharge from SRC. In addition to outpatient treatment at SRC, the UAB-TBIMS collaborates with Vocational Rehabilitation Services (ADRS) and the Alabama Head Injury Foundation (AHIF) to promote return to employment and other daily activities. The Neurobehavioral Clinic is one example of the collaboration between the UAB-TBIMS, ADRS and AHIF. Together, the partners created a model clinic for treatment of neurobehavioral disorders. The Neurobehavioral Clinic occurs once a month, and it offers treatment suggestions for people with TBI who experience behavioral problems.

2 - Research

The UAB-TBIMS maintains one of the most successful databases in the nation. Since 1998, the UAB-TBIMS has enrolled over 850 people with TBI in the database. The data collected by the UAB-TBIMS is also combined with other centers across the country. Together, there are over 10,000 people with TBI being followed. The data collected in this database provides information about outcomes following TBI, and the data allows researchers to examine variables that might affect outcomes of TBI.

Driving is a major step toward independence and improving self-esteem for people recovering from TBI. However, many cannot return to driving because of problems with attention skills, visual spatial abilities, response speed, and other problems that are common following TBI.

A large focus of UAB-TBIMS research is on driving following TBI. In one research study of almost 200 people treated for TBI at SRC, results suggest:

- those who were older and female tended

to avoid a greater number of challenging everyday driving scenarios; and
- people that had more severe injuries and those with poorer performance on cognitive measures at the time of rehabilitation discharge were likely to drive less frequently and over less distances at follow up, though they did not avoid challenging driving situations.

These results suggest young males and people with more severe TBI may require added attention regarding their driving behavior.

The UAB-TBIMS has another research study to evaluate the effectiveness of a visual training program to improve Useful Field of View performance, which is a screening test for driving safety. It is hoped that such a program, which can be done at home, can improve visual speed and potentially result in a more rapid return to driving. The study is not yet complete.

The UAB-TBIMS also participates in multi-center research studies with other TBI Model Systems. IResults indicate at least half of the people with moderate to severe TBI return to driving in the first 5 years following injury, with most of those driving within the first year.

Headaches are another common problem following TBI. Yet, there is a poor understanding of who does and does not develop headaches as well as whether or not there are risk factors for developing headaches following TBI.

The University of Washington TBIMS was the lead center on a research study on the natural history of headaches after TBI. The UAB-TBIMS was part of this multi-center study. The results showed:

- 71% of study participants with moderate-severe TBI reported headache sometime during the first year after injury;
- 41% of participants reported having headaches for at least 1 year after injury;
- people with a history of headaches before injury were at higher risk for developing headaches after injury;
- women were at higher risk for developing headaches after injury; and
- severity of injury was not a risk factor for developing headaches after injury.

3 - Dissemination

Dissemination is the effort to get educational information gained from research to a target audience. The UAB-TBIMS produces information in-house and in collaboration with others with the purpose to reach two target audiences.

For Consumers

The UAB-TBIMS website (www.uab.edu/tbi) is the primary source for dissemination of information. The website is designed to be the starting point for anyone who is searching for information. It contains all materials produced by the UAB-TBIMS as well as links to other TBI Model System Centers, national and state TBI organizations and associations, and various educational institution web sites providing information related to TBI.

The website is recently redesigned. There is an easier navigation with banner topics and sidebars for you to quickly find the information you want.

- Newly Injured
- Daily Living
- Consumer Groups
- Professional Groups
- Research
- Information in Spanish

The UAB-TBIMS website is home to a series of Information Sheets developed in collaboration with the Model Systems Knowledge Translation Center (MSKTC) and the TBIMS.

UAB-TBIMS program director, Dr. Tom Novack led the development of a 4-part information sheet series on Understanding TBI.

- Part 1: What happens to the brain during injury and in the early stages of recovery from TBI?
- Part 2: Brain injury impact on individuals' Functioning
- Part 3: The Recovery Process
- Part 4: The impact of a recent TBI on family members and what they can do to help with

recovery

The UAB-TBIMS also links to other information sheets based on outcomes gained by TBI Model Systems' research.

- Acute Inpatient Rehabilitation
- Alcohol & TBI
- Balance Problems & TBI
- Cognitive Problems
- Depression
- Driving
- Emotional Problems
- Fatigue
- Headaches
- Returning to School
- Seizures
- Sexuality
- Sleep
- Vegetative & Minimally Conscious States

BrainWaves is the annual UAB-TBIMS newsletter. Past issues offered information on varied topics related to TBI.

- In issue 6 (2008), learn about the function of a TBI Model System and how occupational therapy and physical therapy services can benefit consumers after rehabilitation.
- In issue 7 (2009), learn about driving following TBI, including driving evaluation.
- In issue 8 (2010), find answers to questions related to traumatic brain injury caused by violence. What are risk factors for violent brain injury? What happens to the brain? What are treatment options for brain injury caused by gunshot wounds and outcomes?
- In issue 9 (2011), learn about Alabama's Concussion Law and the effort to reduce the incidence of head injuries and avoid the adverse, long-term consequences of concussions.

The UAB-TBIMS, ADRS, and Alabama Head Injury Foundation co-sponsored the Alabama State of the State in Traumatic Brain Injury Conference. This conference offered education and training for consumers and family members. (The UAB-TBIMS also offered education and training for professionals).

For Professionals

The professionals who work with consumers need to stay up to date on consumer concerns. One role of the UAB-TBIMS is to provide professional education and training.

The UAB-TBIMS also contributes to the ADRS Medical Aspects of Disability Training Conference. This annual conference provides education and training to ADRS nurses, occupational therapists, physical therapist, and rehabilitation counselors on various medical concerns, including TBI.

The UAB-TBIMS hosted an education course on UAB's Model Systems of Care for Neurotrauma Patients. This course was on the continuum of care from the acute management, to the team approach to rehabilitation, and the role of medical practitioners in the long-term health management of traumatic brain injury patients. Attendees were community health care providers (doctors, nurses, occupational therapists, physical therapists, and rehabilitation counselors).

The UAB-TBIMS added 4 Rehab TipSheets to the series (9 total). These TipSheets offer care providers a step-by-step guide on managing issues.

- Walking following Brain Injury
- Managing Irritability and Temper Following Brain Injury
- Resting Hand Splint Application
- Bed Positioning for the Immobile Patients

4 - Utilization

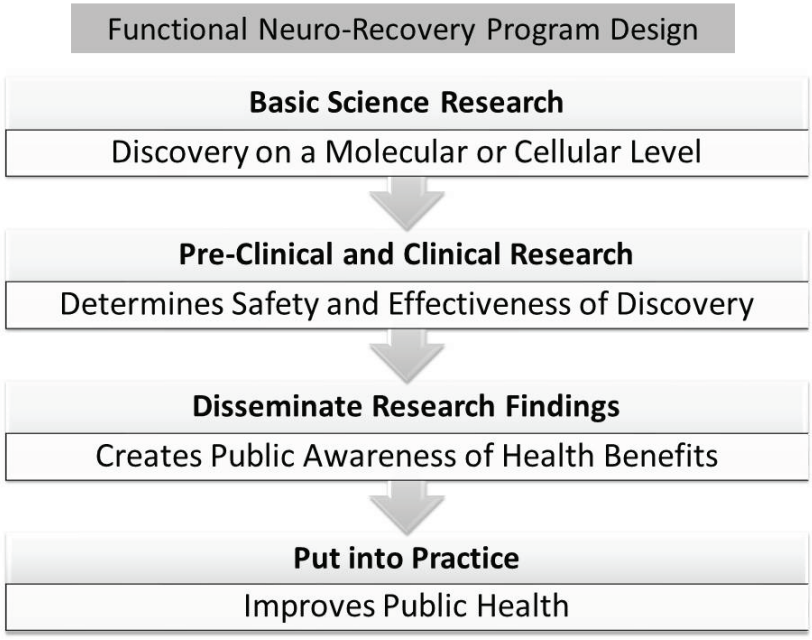
Utilization is the "use" of knowledge gained through research, and the knowledge can only be used if the information is disseminated to consumers and professionals. This is why the UAB-TBIMS has 2 ongoing goals.

1. Conduct TBI-related research to gain knowledge; and
2. Disseminate the knowledge gained through research to help consumers and professionals use the knowledge to improve the health and quality of life of people with TBI.

WHAT'S NEW

The University of Alabama at Birmingham Traumatic Brain Injury Model System (UAB-TBIMS) is proud to announce that we have again received funding to continue as a TBI Model System. The new grant will fund activities from 2012 to 2017. UAB has been a TBI Model System since 1998.

The UAB-TBIMS is now part of the Department of Physical Medicine and Rehabilitation's Functional Neuro-Recovery Program. It commonly takes more than a decade for a basic scientific discovery to advance through preclinical and clinical studies to result in a new treatment for patients with TBI and other neurologically-related conditions. The new Program aims to accelerate the flow from basic scientific discoveries to clinical practice while, at the same time, provide hands-on training for the next generation of researchers at the undergraduate, doctoral, and postdoctoral levels. Now, scientists and clinicians work under one roof. This design helps them share information at each stage to speed the work in the laboratory into effective treatments.



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