Traumatic Brain Injury and kids: New treatment guidelines issued

Third-edition seeks to improve mortality rates for severe pediatric TBI; Includes algorithm aimed at bridging treatment, research gaps

March 06, 2019

Digital Media Kit

The Digital Media Kit includes links to release, photos, videos & more.

DOWNLOAD PDF

Each year in the United States, more than 600,000 children are seen in emergency rooms due to traumatic brain injury, a disruption to the normal function of the brain caused by a bump, blow or jolt to the head. Severe TBI results in approximately 7,000 childhood deaths annually, while survivors of the condition may suffer from long-term health conditions such as seizures, learning difficulty and communication disorders.

To help promote the highest standards of care, and improve the overall rates of survival and recovery following TBI, a panel of pediatric critical care, neurosurgery and other pediatric experts today issued the 3rd edition of the Brain Trauma Foundation Guidelines for the Management of Pediatric Severe TBI.
The updated guidelines reflect the addition of nearly 50 research studies, and include eight new, or revised, treatment recommendations for health care providers that range from the use of intracranial monitoring to the use of hypertonic saline to reduce acute brain swelling.

An executive summary of the guidelines
published in the journals *Pediatric Critical Care Medicine* and *Neurosurgery*; the full guidelines are available via *Pediatric Critical Care Medicine*, an official journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies.

“These guidelines provide a vital framework as to the best evidence we have for the diagnosis and treatment of children with severe traumatic brain injury,” said co-author and clinical investigator **P. David Adelson, M.D.**, Director, Barrow Neurological Institute at Phoenix Children’s Hospital and the Diane and Bruce Halle Chair for Children’s Neurosciences in Phoenix, Arizona. “From the original edition until now, the recommendations and perspective as to future questions have shaped how we as clinicians have approached brain injury for the past 15 years and have been instrumental in helping save and improve the quality of lives of these children.”

An associated manuscript, also published in *Pediatric Critical Care Medicine*, describes an algorithm designed to guide first and second tier therapies for infants and children with severe TBI. The tool for bedside use by caregivers, which supplements evidence-based recommendations in the updated guidelines, was created using a validated, consensus-based expert opinion process.

“We believe a combination of research findings and real-life experience will further advance the bedside care of infants and children with severe TBI, especially in treatment scenarios where scientific and clinical research is lacking,” said first author **Patrick Kochanek, M.D.**, Grenvik Professor and Vice Chairman of Critical Care Medicine and Director of the Safar Center for Resuscitation Research at the University of Pittsburgh. “This algorithm will also help to identify key research priorities to help ensure the ongoing momentum of consistent, high-quality care for patients across the globe.”

The original Brain Trauma Foundation Guidelines published in 2003 and were last updated in 2012. The 3rd edition was developed as part of the Brain Trauma Evidence-based Consortium based at the Stanford University School of Medicine. The Pacific Northwest Evidence-based Practice Center at OHSU managed the effort, which included experts from OHSU, the University of Pittsburgh, Boston Children’s Hospital, Phoenix Children’s Hospital, Children’s National Medical Center, Seattle Children’s Hospital, the University of Utah, the University of British Columbia, and Duke University.
This work was funded by the U.S. Army Contracting Command, Aberdeen Proving Ground, Natick Contracting Division, through a contract awarded to Stanford (W911 QY-14-C-0086) and a subcontract awarded to OHSU. Prior editions were supported by funding from multiple sources through the Brain Trauma Foundation.

For more information, please contact:

Melissa Nielsen, Communications Manager for SCCM: phone +1 847 827-7405; or email mnielsen@sccm.org.

About the Society of Critical Care Medicine

The Society of Critical Care Medicine (SCCM) is the largest nonprofit medical organization dedicated to promoting excellence and consistency in the practice of critical care. With members in more than 100 countries, SCCM is the only organization that represents all professional components of the critical care team. The Society offers a variety of activities that ensures excellence in patient care, education, research, and advocacy. SCCM’s mission is to secure the highest quality of care for all critically ill and injured patients. Visit sccm.org for more information. Follow @SCCM or visit us on Facebook.

About Phoenix Children’s Hospital

Phoenix Children’s is Arizona’s only children’s hospital recognized by U.S. News & World Report’s Best Children’s Hospitals. For 35 years, Phoenix Children's has provided world-class inpatient, outpatient, trauma, emergency and urgent care to children and families in Arizona and throughout the Southwest. As one of the largest children’s hospitals in the country, Phoenix Children’s delivers care across more than 75 pediatric specialties. Recognized specifically for its patient-focused innovation, medical education, growth and research, Phoenix Children’s was named Business of the Year and Exceptional Innovator by the Greater Phoenix Chamber in 2018. For more information about the Hospital, visit http://www.phoenixchildrens.org.

About Barrow Neurological Institute at Phoenix Children's Hospital
Barrow Neurological Institute at Phoenix Children's Hospital heals children with neurological and mental health diseases and disorders so that they can have a happy and healthy quality of life by offering the most comprehensive inpatient and outpatient neurological care and services to infants, children and teens with neurological-related problems. Recognized by U.S. News & World Report as a leading Neuroscience Center for our collaborative and comprehensive approach to clinical medicine, education and research has resulted in Barrow at Phoenix Children's being the largest pediatric neuroscience center in the Southwest. We are one of the few hospitals to integrate pediatric neurosurgery, neurology, psychology, psychiatry, neurodevelopmental pediatrics and rehabilitation in the global care of children. Specialized medical equipment, pediatric patient rooms and pediatric specialists, in addition to a family-centered focus, make the institute and hospital uniquely qualified to treat complex neurological disorders in pediatric patients. For more information, visit: http://barrow.phoenixchildrens.org.