What is the purpose of the study?
Traumatic brain injury (TBI) in children is a leading cause of death and disability. The main goals of TBI treatment are to limit elevations in brain pressure (intracranial pressure of ICP) and to maintain adequate oxygen levels in the brain. Although it is possible to monitor pressure using an ICP catheter, there have been limits in the way clinicians can assess and monitor the brain’s oxygen levels. Recently, a new monitor, LICOX, has made it possible to measure the oxygen level along with the pressure in the brain. The purpose of this study is to evaluate the use of the new LICOX monitor in children with traumatic brain injury. The researchers will examine the relationship between brain oxygen levels and other factors (e.g., ICP and other outcomes).

What does the study involve?
This study involves only the collection of data that is routinely documented as a normal part of the child’s care; there are no procedures or tests that will be done solely for this study. Data that will be collected will include general information (e.g., child’s age, gender, etc.) , initial assessment data, initial and ongoing CT or MRI scan results, vital signs, neurological findings, medications administered, and measurements obtained from the intracranial monitoring devices (i.e. ICP and LICOX).

What are the benefits?
There are no direct benefits to participation in this study. However, the information gained from this study may assist researchers, physicians and other clinicians who care for children with traumatic brain injury to better understand the outcomes associated with the condition and to improve future care and treatments.

What are the risks?
The only risk relates to potential loss of patient confidentiality.

How will I get more information about the study?
No actual patients are being recruited for this study. If you are interested in learning more about this study, you can contact the principal investigator listed below.

Site(s): Advocate Hope Children’s Hospital

Who should I contact for more information?
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