
NTDB® data points

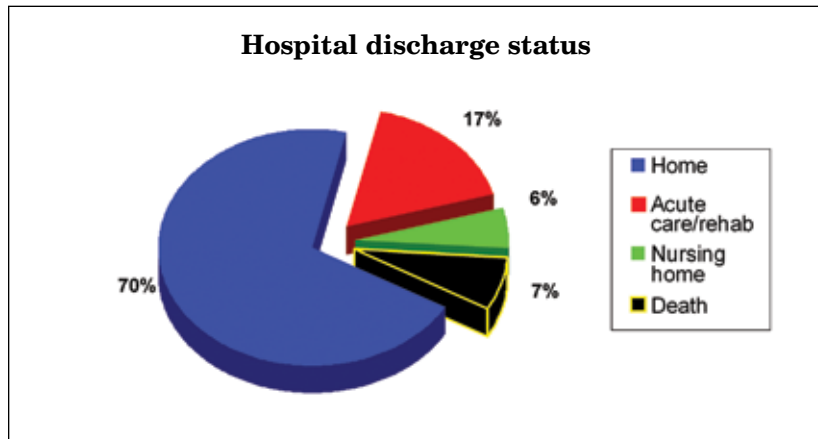
Watch your head

by Richard J. Fantus, MD, FACS; and James L. Stone, MD, FACS

Traumatic brain injury (TBI) is a result of either a blunt force or penetrating injury to the head that disrupts the brain's normal function. TBI can range from a mild form with only a brief mental status change or brief change in consciousness to severe TBI seen with injuries that result in extended periods of unconsciousness or amnesia.

According to the National Center for Injury Prevention and Control of the Centers for Disease Control and Prevention (CDC), more than 1.4 million people sustain a TBI each year in the U.S. Among those victims, 50,000 die and 235,000 are hospitalized, whereas 1.1 million are treated and released from an emergency department. In the 0 to 14 years age group, TBI results in 2,685 deaths, 37,000 hospitalizations, and 435,000 emergency department visits annually. CDC estimates that 5.3 million (2 percent) of the U.S. population has long-term or lifetime need for assistance with performing activities of daily living as a result of a TBI. The direct medical costs and indirect costs in lost productivity as a result of TBI were estimated at \$60 billion in 2000 (<http://www.cdc.gov/ncipc/tbi/TBI.htm>).

In order to examine the occurrence of head injuries in the National Trauma Data Bank® (NTDB) Dataset 7.1,



records were searched using the International Classification of Diseases, Ninth Revision, Clinical Modification codes for brain injuries (850–854.19, 803.1–803.49, 800.1–800.49, 800.6–800.99, 801.1–801.49, 801.6–801.99, 803.6–803.99, 804.1–804.49, and 804.6–804.99) along with the codes for skull injuries (800.0–800.09, 800.5–800.59, 801.0–801.09, 801.5–801.59, 802–803.09, 803.5–803.59, 804–804.09, and 804.5–804.59). Out of the 1,926,245 incidents in the NTDB, 396,722 records contained one of these diagnosis codes. The primary mechanisms for injury were blunt force trauma, accounting for 97 percent of all records. Blunt force mechanisms in order of frequency were motor vehicle

crashes (52 percent) followed by falls (28 percent) and struck by/against events (7 percent). There were 358,845 records that noted discharge disposition, including 252,134 discharged to home, 60,799 to acute care/rehabilitation, and 20,328 sent to nursing homes; 25,584 died. (These data are displayed in the graph on this page.) The patients were 68.8 percent male, on average 37.6 years of age, and had an average length of stay of 6.12 days and an average injury severity score of 14.7. Of those also tested for alcohol, 41 percent tested positive and of those tested for drugs, half tested positive.

Not all head injuries are major and obvious. There are subgroups of TBI in which the only symptoms or sequelae may

be loss of concentration, mood swings, or difficulty with short-term memory. These patients need to be identified and offered the appropriate resources so they are better able to deal with their subtle deficits.

TBI is a major cause of morbidity and mortality, so given the spectrum and magnitude of TBI, please be careful in your daily activities and watch your head.

The full NTDB *Annual Report Version 7.1* is available on the ACS Web site as a PDF and a

PowerPoint presentation at <http://www.ntdb.org>.

If you are interested in submitting your trauma center's data, contact Melanie L. Neal, Manager, NTDB, at mneal@facs.org.

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This online, contemporary version of the popular "Little Red Book" has proven to be an invaluable resource for medical students seeking opportunities in graduate medical education. The revised online version of this helpful reference includes a searchable database containing a complete list of accredited surgical specialty residency programs, as well as a section devoted to assisting students in choosing a residency program that is their best match.

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