

SUPPLEMENTARY TABLE S2. mTBI BILLING CODES USED TO SELECT PATIENTS BY THE NLP ALGORITHM

<i>Code Type</i>	<i>mTBI Codes</i>	<i>Definition</i>
ICD-9	800.0	Fracture of vault of skull, closed without mention of intracranial injury
ICD-9	800.5	Fracture of vault of skull, open without mention of intracranial injury
ICD-9	801.0	Fracture of base of skull, closed without mention of intracranial injury
ICD-9	801.5	Fracture of base of skull, open without mention of intracranial injury
ICD-9	803.0	Other and unqualified skull fracture, closed without mention in intracranial injury
ICD-9	803.5	Other and unqualified skull fracture, open without mention in intracranial injury
ICD-9	804.0	Multiple fractures involving skull or face with other fractures, closed without mention of intracranial injury
ICD-9	804.5	Multiple fractures involving skull or face with other fractures, open without mention of intracranial injury
ICD-9	850.0	Concussion with no loss of consciousness
ICD-9	850.1	Concussion with brief loss of consciousness
ICD-9	850.5	Concussion with loss of consciousness of unspecified duration
ICD-9	850.9	Concussion, unspecified
ICD-9	854.0	Intracranial injury of other and unspecified nature
ICD-9	959.0	Head injury, unspecified
ICD-10	S02.0	Fracture of vault of skull
ICD-10	S02.1	Fracture of base of skull
ICD-10	S02.9	Fracture of unspecified skull and facial bones
ICD-10	S06.0	Concussion
ICD-10	S06.1	Traumatic cerebral edema
ICD-10	S06.8	Other specified intracranial injury
ICD-10	S06.9	Unspecified intracranial injury
ICD-10	S09.7	Other unspecified injuries of head
ICD-10	T02.0	Fractures involving head with neck
ICD-10	T06.0	Injuries of brain and cranial nerves with injuries of nerves and spinal cord at neck level
ICD-10	S09.8	Other unspecified injuries of head
ICD-10	S09.9	Other unspecified injuries of head
ICD-10	T90.2	Sequelae of injuries to the head
ICD-10	T90.4	Sequelae of injuries to the head
ICD-10	T90.5	Sequelae of injuries to the head
ICD-10	T90.8	Sequelae of injuries to the head
ICD-10	T90.9	Sequelae of injuries to the head
ICD-10	T90.1	Sequelae of injuries to the head

ICD-9 mTBI codes were endorsed by the National Center for Injury Prevention and Control,¹ and were mapped to ICD-10 codes using an internal Vanderbilt University Medical Center crosswalk tool (<https://terminology.mc.vanderbilt.edu/ctssearch/ctssearch.htm>). Codes included all sub-classifications.

mTBI, mild traumatic brain injury; NLP, natural language processing; ICD, International Classification of Diseases.