

Identification of children at very low risk of clinically-important brain injuries after head trauma: a prospective cohort study.

Documentation and Data Dictionary for the Public Use Dataset-Release Date April 2012

Dataset Programs	
Introduction:	This prospective observational cohort study enrolled children younger than 18 years of age with minor head trauma evaluated in 25 PECARN emergency departments. The goal was to derive and validate two clinical prediction rules to accurately identify children at near-zero risk of clinically important traumatic brain injuries after blunt trauma (one rule for children younger than 2 years, the other for children 2 years and older). We enrolled subjects presenting within 24 hours of head trauma with Glasgow Coma Scale scores of 14-15. These validated prediction rules identified children at very low risk of clinically important traumatic brain injuries (TBI) for whom CT scans can routinely be obviated.
Inclusion/Exclusion for Public Use Dataset:	Children presenting within 24 hours of head trauma were included in the public use dataset regardless of GCS score. We excluded children with trivial injury mechanisms defined by ground-level falls or walking or running into stationary objects, and no signs or symptoms of head trauma other than scalp abrasions and lacerations. Patients were also excluded if they had penetrating trauma, known brain tumors, pre-existing neurological disorders complicating assessment, or neuroimaging at an outside hospital before transfer. Patients were excluded if they had ventricular shunts or bleeding disorders.
Data Collection:	Trained site investigators and other emergency department physicians recorded patient history, injury mechanism, and symptoms and signs on a standardized data form before knowing imaging results (if imaging was done).
Outcomes:	We defined clinically-important TBI (ciTBI) a priori as death from TBI, neurosurgery, intubation for more than 24 hours for TBI, or hospital admission of two or more nights for the TBI in association with TBI on CT. This outcome was defined to exclude brief intubations for imaging or overnight admission for minor CT findings. Hospitalizations for social reasons were not included. TBI on CT was defined by intracranial hemorrhage or contusion, cerebral edema, traumatic infarction, diffuse axonal injury, shearing injury, sigmoid sinus thrombosis, midline shift of intracranial contents or signs of brain herniation, diastasis of the skull, pneumocephalus, or skull fracture depressed by at least the width of the skull table.
Follow-up Procedures:	Patients were admitted to the hospital at emergency department physician discretion. Records of admitted patients were reviewed by research coordinators and site investigators to assess CT results and presence of ciTBIs. To identify missed traumatic brain injuries, research coordinators did standardized telephone surveys of guardians of patients discharged from the emergency department between 7 and 90 days after the emergency department visit. Medical records and imaging results were obtained if a missed traumatic brain injury was suggested at follow-up. If a ciTBI was identified, the patient's outcome was classified accordingly. If we were unable to contact the patient's guardian, we reviewed the medical record, emergency department process improvement records, and county morgue records, to ensure that no discharged patient was subsequently diagnosed with ciTBI.
TBI Prediction Rule:	A prediction rule for identifying children at very low risk of clinically-important TBI was published in Lancet in 2009. The full reference for this publication is provided below. Note that not all variables in the public use dataset were considered for the rule. In addition, the rule is based on the subset of patients who had a total GCS of 14 or 15 and were not missing the primary outcome of clinically-important TBI. The most rigorous attention to data cleaning and verification was given to the subjects and data elements included in the creation of the rule.
TBI Prediction Rule Article Reference:	Kuppermann N, Holmes JF, Dayan PS, Hoyle JD, Atabaki SM, Holubkov R, Nadel FM, Monroe D, Stanley RM, Borgialli DA, Badawy MK, Schunk JE, Quayle KS, Mahajan P, Lichenstein R, Lillis KA, Tunik MG, Jacobs ES, Callahan JM, Gorelick MH, Glass TF, Lee LK, Bachman MC, Cooper A, Powell EC, Gerardi MJ, Melville KA, Muizelaar JP, Wisner DH, Zuspan SJ, Dean JM, Wooten-Gorges SL for the Pediatric Emergency Care Applied Research Network (PECARN). Identifying children at very low risk of clinically-important traumatic brain injuries after blunt head trauma. <i>Lancet</i> 2009;374 1160-70.

Variable Name	Label/Description	Format Name and Values	Notes
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PatNum	Patient Number	Numeric	A randomly generated number that uniquely identifies each patient.
EmplType	Position of physician completing data sheet	EmplType 1 Nurse Practitioner 2 Physician Assistant 3 Resident 4 Fellow 5 Faculty	An attending or fellow physician reviewed all forms.
Certification	Certification of physician completing the form	CertType 1 Emergency Medicine 2 Pediatrics 3 Pediatrics Emergency Medicine 4 Emergency Medicine and Pediatrics 90 Other	
InjuryMech_Recat	Injury mechanism	InjMech 1 Occupant in motor vehicle collision (MVC) 2 Pedestrian struck by moving vehicle 3 Bike rider struck by automobile 4 Bike collision or fall from bike while riding 5 Other wheeled transport crash 6 Fall to ground from standing/walking/running 7 Walked or ran into stationary object 8 Fall from an elevation 9 Fall down stairs 10 Sports 11 Assault 12 Object struck head - accidental 90 Other mechanism	All injury mechanisms that were classified by a physician as "Other" were reviewed by the PI and reclassified into the remaining injury mechanism categories when it was applicable.

High_impact_InjSev	Severity of injury mechanism	InjSev 1 Low 2 Moderate 3 High	Injury Severity based on the reclassified injury mechanism classification High Motor vehicle collision with patient ejection, death of another passenger, or rollover Pedestrian or bicyclist without helmet struck by a motorized vehicle Falls of > 5 feet for patients 2 yrs and older Falls of > 3 feet < 2 yrs Head struck by a high-impact object Low Fall from ground level (or fall to ground from standing, walking or running) Walked/ran into stationary object Medium Any other mechanism
Amnesia_verb	Does the patient have amnesia for the event?	YesNoPV 0 No 1 Yes 91 Pre-verbal/Non-verbal	Pre-verbal is marked if the patient is too young to speak. Non-verbal is marked if the patient is intubated or otherwise unable to give an understandable verbal response. Pre-verbal and non-verbal were determined by the physician.
LOCSeparate	History of loss of consciousness?	YesNoLOC 0 No 1 Yes 2 Suspected	
LocLen	Duration of loss of consciousness	LocLen 1 < 5 sec 2 5 sec - < 1 min 3 1 -5 min 4 > 5 min 92 Not applicable	Not applicable is marked if history of loss of consciousness is answered as no or missing.
Seiz	Post-traumatic seizure?	YesNo 0 No 1 Yes	
SeizOccur	When did the post-traumatic seizure occur?	SeizOcc 1 Immediately on contact 2 Within 30 minutes of injury 3 > 30 minutes after injury 92 Not applicable	Not applicable is marked if post-traumatic seizure is answered as no or missing.
SeizLen	Duration of post-traumatic seizure	SeizLen 1 < 1 min 2 1 - < 5 min 3 5 - 15 min 4 > 15 min 92 Not applicable	Not applicable is marked if post-traumatic seizure is answered as no or missing.

ActNorm	Does the parent think the child is acting normally / like themselves?	YesNo 0 No 1 Yes	
HA_verb	Headache at time of ED evaluation?	YesNoPV 0 No 1 Yes 91 Pre-verbal/Non-verbal	Pre-verbal is marked if the patient is too young to speak. Non-verbal is marked if the patient is intubated or otherwise unable to give an understandable verbal response. Pre-verbal and non-verbal were determined by the physician.
HASeverity	Severity of headache	HASev 1 Mild (barely noticeable) 2 Moderate 3 Severe (intense) 92 Not applicable	Not applicable is marked if headache at time of ED evaluation is answered as no, pre-verbal/non-verbal, or missing.
HASstart	When did the headache start?	Start 1 Before head injury 2 Within 1 hr of event 3 1 - 4 hrs after event 4 > 4 hrs after event 92 Not applicable	Not applicable is marked if headache at time of ED evaluation is answered as no, pre-verbal/non-verbal, or missing.
Vomit	Vomiting (at any time after injury)?	YesNo 0 No 1 Yes	
VomitNbr	How many vomiting episodes?	VomEpi 1 Once 2 Twice 3 > 2 times 92 Not applicable	Not applicable is marked if vomiting (at any time after injury) is answered as no or missing.
VomitStart	When did the vomiting start?	Start 1 Before head injury 2 Within 1 hr of event 3 1 - 4 hrs after event 4 > 4 hrs after event 92 Not applicable	Not applicable is marked if vomiting (at any time after injury) is answered as no or missing.
VomitLast	When was the last episode of vomiting?	VomLast 1 < 1 hr before ED evaluation 2 1 -4 hrs before ED evaluation 3 > 4 hrs before ED evaluation 92 Not applicable	Not applicable is marked if vomiting (at any time after injury) is answered as no or missing.
Dizzy	Dizziness (at ED evaluation)?	YesNo 0 No 1 Yes	
Intubated	Is the physician's evaluation being made after the patient was intubated?	YesNo 0 No 1 Yes	

Paralyzed	Is the physician's evaluation being made after the patient was pharmacologically paralyzed?	YesNo 0 No 1 Yes	
Sedated	Is physician's evaluation being made after the patient was pharmacologically sedated?	YesNo 0 No 1 Yes	
GCSEye	GCS component: eye	GCSEye 1 None 2 Pain 3 Verbal 4 Spontaneous	
GCSVerbal	GCS component: verbal	GCSVerbal 1 None 2 Incomprehensible sounds (moans) 3 Inappropriate words (cries to pain) 4 Confused (irritable/cries) 5 Oriented (coos/babbles)	
GCSMotor	GCS component: motor	GCSMotor 1 None 2 Abnormal extension posturing 3 Abnormal flexure posturing 4 Withdraws to pain 5 Localizes pain (withdraws to touch) 6 Follow commands (spontaneous movement)	
GCSTotal	GCS Total	Numeric	
GCSGroup	GCS: 14-15	GCSGroup 1 3 - 13 2 14 - 15	
AMS	GCS < 15 or other signs of altered mental status (agitated, sleepy, slow to respond, repetitive questions in the ED, other)	YesNo 0 No 1 Yes	AMS was defined as a GCS between 3 and 14 or other signs of altered mental status (agitation, repetitive questions, sleepy, slow to respond, or other)
AMSAgitated	Other signs of altered mental status: agitated	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if patient does not have GCS < 15 or other signs of altered mental status or AMS is missing.
AMSSleep	Other signs of altered mental status: sleepy	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if patient does not have GCS < 15 or other signs of altered mental status or AMS is missing.

AMSSlow	Other signs of altered mental status: slow to respond	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if patient does not have GCS < 15 or other signs of altered mental status or AMS is missing.
AMSRepeat	Other signs of altered mental status: repetitive questions in ED	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if patient does not have GCS < 15 or other signs of altered mental status or AMS is missing.
AMSOth	Other signs of altered mental status: other	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if patient does not have GCS < 15 or other signs of altered mental status or AMS is missing.
SFxFalpal	Palpable skull fracture?	YesNoUnc 0 No 1 Yes 2 Unclear exam	If significant swelling or some other reason limits the physician's ability to assess for a skull fracture "Unclear exam" was marked. In the clinical prediction rule, palpable skull fracture and unclear exam were combined.
SFxFalpalDepress	If the patient has a palpable skull fracture, does the fracture feel depressed?	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if palpable skull fracture is answered as unclear, no, or missing.
FontBulging	Anterior fontanelle bulging?	YesNoClo 0 No/Closed 1 Yes	
SFxBas	Signs of basilar skull fracture?	YesNo 0 No 1 Yes	
SFxBasHem	Basilar skull fracture: hemotympanum	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if signs of basilar skull fracture is answered as no or missing.
SFxBasOto	Basilar skull fracture: CSF otorrhea	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if signs of basilar skull fracture is answered as no or missing.
SFxBasPer	Basilar skull fracture: periorbital ecchymosis (raccoon eyes)	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if signs of basilar skull fracture is answered as no or missing.
SFxBasRet	Basilar skull fracture: retroauricular ecchymosis (battle's sign)	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if signs of basilar skull fracture is answered as no or missing.

SFxBasRhi	Basilar skull fracture: CSF rhinorrhea	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if signs of basilar skull fracture is answered as no or missing.
Hema	Raised scalp hematoma(s) or swelling(s)?	YesNo 0 No 1 Yes	
HemaLoc	Hematoma(s) or swelling(s) location(s) involved	HemLoc 1 Frontal 2 Occipital 3 Parietal/Temporal 92 Not applicable	Not applicable is marked if raised scalp hematoma(s) or swelling(s) is answered as no or missing.
HemaSize	Size (diameter) of largest hematoma or swelling	HemSz 1 Small (<1 cm, barely palpable) 2 Medium (1-3 cm) 3 Large (>3 cm) 92 Not applicable	Not applicable is marked if raised scalp hematoma(s) or swelling(s) is answered as no or missing.
Clav	Any evidence of trauma (including laceration, abrasion, hematoma) above the clavicles (includes neck/face/scalp)?	YesNo 0 No 1 Yes	
ClavFace	Trauma above the clavicles region: face	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if any evidence of trauma above the clavicles is answered as no or missing.
ClavNeck	Trauma above the clavicles region: neck	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if any evidence of trauma above the clavicles is answered as no or missing.
ClavFro	Trauma above the clavicles region: scalp-frontal	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if any evidence of trauma above the clavicles is answered as no or missing.
ClavOcc	Trauma above the clavicles region: scalp-occipital	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if any evidence of trauma above the clavicles is answered as no or missing.
ClavPar	Trauma above the clavicles region: scalp-parietal	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if any evidence of trauma above the clavicles is answered as no or missing.
ClavTem	Trauma above the clavicles region: scalp-temporal	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if any evidence of trauma above the clavicles is answered as no or missing.

NeuroD	Neurological deficit (other than mental status)?	YesNo 0 No 1 Yes	
NeuroDMotor	Neurological deficit: motor	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if neurological deficit (other than mental status) is answered as no or missing.
NeuroDSensory	Neurological deficit: sensory	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if neurological deficit (other than mental status) is answered as no or missing.
NeuroDCranial	Neurological deficit: cranial nerve (includes pupil reactivity)	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if neurological deficit (other than mental status) is answered as no or missing.
NeuroDReflex	Neurological deficit: reflexes	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if neurological deficit (other than mental status) is answered as no or missing.
NeuroDOth	Neurological deficit: other deficits (e.g. cerebellar, gait)	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if neurological deficit (other than mental status) is answered as no or missing.
OSI	Clinical evidence of other (non-head) substantial injuries: (includes but not limited to fractures, intra-abdominal injuries, intra-thoracic injuries and lacerations requiring operating room repair.)	YesNo 0 No 1 Yes	
OSIExtremity	Other (non-head) substantial injury: extremity	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.
OSICut	Other (non-head) substantial injury: laceration requiring repair in the operating room	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.
OSICspine	Other (non-head) substantial injury: c-spine	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.
OSIFlank	Other (non-head) substantial injury: chest/back/flank	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.

OSIAbdomen	Other (non-head) substantial injury: intra-abdominal	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.
OSIPelvis	Other (non-head) substantial injury: pelvis	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.
OSIOth	Other (non-head) substantial injury: other	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if other (non-head) substantial injuries is answered as no or missing.
Drugs	Clinical suspicion for alcohol or drug intoxication (not by laboratory testing)?	YesNo 0 No 1 Yes	
CTForm1	Is a head CT, skull x-ray or head MRI being ordered or obtained?	YesNo 0 No 1 Yes	This variable only indicates if the physician was planning on obtaining a CT when the form was filled out. The physician could have changed his/her mind once the form was completed. This variable does not mean a CT was actually ordered. To see if a CT was actually ordered use the CTDone or EDCT variables.
IndAge	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: young age	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndAmnesia	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: amnesia	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndAMS	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: decreased mental status	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.

IndClinSFx	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: clinical evidence of skull fracture	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndHA	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: headache	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndHema	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: scalp hematoma	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndLOC	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: loss of consciousness	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndMech	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: mechanism	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndNeuroD	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: neurological deficit (other than mental status)	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndRqstMD	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: referring MD request	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.

IndRqstParent	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: parental anxiety/request	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndRqstTrauma	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: trauma team request	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndSeiz	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: seizure	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndVomit	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: vomiting	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndXraySfx	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: skull fracture on x-ray	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
IndOth	If a CT is being ordered or obtained check the most important indications in influencing the decision to obtain a head CT: other	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing. More than one indication can be selected for each patient.
CTSed	Was patient given or will patient be given pharmacological sedation for head CT scan?	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if a head CT, skull x-ray or head MRI being ordered or obtained is answered as no or missing.

CTSedAgitate	Reason for pharmacological sedation: agitation/inability to hold still	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable was marked if question of whether patient was given or will patient be given pharmacological sedation for head CT is answered as no, not applicable, or missing. More than one reason for pharmacological sedation can be selected for each patient.
CTSedAge	Reason for pharmacological sedation: young age	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable was marked if question of whether patient was given or will patient be given pharmacological sedation for head CT is answered as no, not applicable, or missing. More than one reason for pharmacological sedation can be selected for each patient.
CTSedRqst	Reason for pharmacological sedation: CT technician request	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable was marked if question of whether patient was given or will patient be given pharmacological sedation for head CT is answered as no, not applicable, or missing. More than one reason for pharmacological sedation can be selected for each patient.
CTSedOth	Reason for pharmacological sedation: other	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable was marked if question of whether patient was given or will patient be given pharmacological sedation for head CT is answered as no, not applicable, or missing. More than one reason for pharmacological sedation can be selected for each patient.
AgeInMonth	Age in months	Numeric	This is computed from the time of ED evaluation or injury date if ED evaluation is missing.
AgeinYears	Age in years	Numeric	This is computed from the time of ED evaluation or injury date if ED evaluation is missing.
AgeTwoPlus	Age: < 2 years	AgeTwo 1 < 2 years 2 > = 2 years	This is computed from the time of ED evaluation or injury date if ED evaluation is missing.
Gender	Gender	Gender 1 Male 2 Female	
Ethnicity	Ethnicity	Ethn 1 Hispanic 2 Non-Hispanic	As reported by the physician not by the patient/guardian.

Race	Race	Race 1 White 2 Black 3 Asian 4 American Indian/Alaskan Native 5 Pacific Islander 90 Other	As reported by the physician not by the patient/guardian.
Observed	Was the patient observed in the ED after the physician's initial ED Evaluation to determine whether to obtain head CT?	YesNo 0 No 1 Yes	
EDDisposition	ED Disposition	Disp 1 Home 2 OR 3 Admit - general inpatient 4 Admit short-stay (< 24 hr)/observation unit 5 ICU 6 Transferred to another hospital 7 AMA 8 Death in ED 90 Other	
CTDone	Any head CT performed?	YesNo 0 No 1 Yes	This indicates if any head CT was performed regardless of where it was obtained except if the ED head CT was marked as "not interpretable".
EDCT	Head CT performed in ED	YesNoNA 0 No 1 Yes 92 Not applicable	ED head CT was defined as any head CT performed in the ED except if the head CT was "not interpretable". Not applicable is marked if any CT done is answered as no.
PosCT	TBI on CT (determined by PI)	YesNoNA 0 No 1 Yes 92 Not applicable	The first traumatic head CT of any patient was reviewed in order to determine if there was a TBI on CT. TBI on CT is defined as any of the traumatic findings (1-23) below, except for skull fracture. Skull fractures were not regarded as TBIs unless the fracture was depressed by at least the width of the skull. Not applicable is marked if no head CT was performed.
Finding1	Traumatic finding: cerebellar hemorrhage	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.

Finding2	Traumatic finding: cerebral contusion	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding3	Traumatic finding: cerebral edema	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding4	Traumatic finding: cerebral hemorrhage/intracerebral hematoma	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding5	Traumatic finding: diastasis of the skull	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding6	Traumatic finding: epidural hematoma	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding7	Traumatic finding: extra-axial hematoma	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding8	Traumatic finding: intraventricular hemorrhage	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding9	Traumatic finding: midline shift/shift of brain structures	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding10	Traumatic finding: pneumocephalus	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding11	Traumatic finding: skull fracture	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding12	Traumatic finding: subarachnoid hemorrhage	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.

Finding13	Traumatic finding: subdural hematoma	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding14	Traumatic finding: traumatic infarction	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding20	Traumatic finding (extra finding by PI): diffuse axonal injury	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding21	Traumatic finding (extra finding by PI): herniation	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding22	Traumatic finding (extra finding by PI):shear injury	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
Finding23	Traumatic finding (extra finding by PI): sigmoid sinus thrombosis	YesNoNA 0 No 1 Yes 92 Not applicable	Not applicable is marked if no head CT was performed.
DeathTBI	Death due to TBI	YesNo 0 No 1 Yes	
HospHead	Hospitalized for 2 or more nights due to head injury	YesNo 0 No 1 Yes	
HospHeadPosCT	Hospitalized for 2 or more nights due to head injury and had TBI on CT	YesNo 0 No 1 Yes	The hospitalization had to be due to the traumatic brain injury and not for social reasons. This was defined as a patient having been hospitalized 2 or more nights due to a head injury and also having a TBI on CT.
Intub24Head	Intubated greater than 24 hours for head trauma	YesNo 0 No 1 Yes	
Neurosurgery	Neurosurgery	YesNo 0 No 1 Yes	

PosIntFinal	Clinically-important traumatic brain injury	YesNo 0 No 1 Yes	Clinically-important TBI was defined as having at least one of the following: (1) neurosurgical procedure performed, (2) intubated > 24 hours for head trauma, (3) death due to TBI or in the ED, (4) hospitalized for >= 2 nights due to head injury and having a TBI on CT.
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