

HS Dataset Dictionary

The HS data is split into the datasets described below. There are 2,220 episodes included, four of which are of “unknown cohort”, i.e. it was not clear whether they should be included in the Shock or the TBI cohort. Two cases were removed from the dataset, a prisoner and a pregnant woman, both of whom were in the shock cohort.

cases (n=2,220)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
<i>Cohort</i>			
randGrp	Randomization group	0=HSD; 1=HS; 2=NS	
bong	Bag opened, not given (BONG)	0=No; 1=Yes	
tbi	TBI cohort indicator	0=Not included; 1=Included	
shock	Shock cohort indicator	0=Not included; 1=Included	
unkCohort	Unknown cohort	0=No; 1=Yes	
<i>Episode</i>			
calltmc	Time call received at dispatch/episode time category	0=0001-0400; 1=0401-0800; 2=0801-1200; 3=1201-1600; 4=1601-2000; 5=2001-2400	
analysisCase	Indicates whether case was included in the shock or TBI manuscript analysis tables	0=No; 1=Yes	
<i>Subject</i>			
age	Age (years)	=age if 17 < age <89; =89 if age ≥ 89; = 17 if age ≤ 17	
sexp	Gender	0=Male; 1=Female	
ethnsrc	Source of ethnicity data	0=Pre-hospital; 1=ED Admit ED Admit is gold standard.	
ethn	Ethnicity	0=Not Hispanic or Latino 1=Hispanic or Latino, 2=Unknown/Not noted	
racsrc	Source of race data	0=Pre-hospital; 1=ED Admit ED Admit is gold standard.	
asian	Race: Asian	0=Unselected; 1=Selected	
black	Race: Black/African American	0=Unselected; 1=Selected	
white	Race: White	0=Unselected; 1=Selected	
othrc	Race: Other (only for pre-hospital)	0=Unselected; 1=Selected	Includes American/Indian/Alaska Native and Native Hawaiian/Pacific Islander
othhsp	Race: Marked Hispanic or Latino on pre-hospital	0=Unselected; 1=Selected	
unkrc	Race: Unknown/not noted	0=Unselected; 1=Selected	
<i>Injury Characteristics</i>			
injbnt	Main injury type: blunt	0=No; 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
fall	Blunt injury type: fall	0=No; 1=Yes	
mvcocc	Sub-injury type: MVC-occupant	0=No; 1=Yes	
mvcmcy	Sub-injury type: MVC-motorcyclist	0=No; 1=Yes	
mvcped	Sub-injury type: MVC-pedestrian	0=No; 1=Yes	
miscmch	Sub-injury type: combine machinery, MVC-unknown, MVC-cyclist	0=No; 1=Yes	
struck	Sub-injury type: struck by/against (assault)	0=No; 1=Yes	
othbln	Sub-injury type: other blunt	0=No; 1=Yes	
injpen	Main injury type: penetrating	0=No; 1=Yes	
gsw	Sub-injury type: gun shot wound	0=No; 1=Yes	
othpen	Sub-injury type: other penetrating	0=No; 1=Yes	Including impalement and stabbings
AIS,¹²:			
numInj	Number of injuries recorded	Integer	
numSev9	Number of injuries recorded with severity of 9	Integer	
numNonSev9	Number of injuries recorded without severity of 9	Integer	
headNeckAis1	AIS code with maximum severity among head/neck injuries	Integer AIS codes of 9 are not considered for ranking severities	
headNeckSev1	Severity of head/neck injury with maximum severity	Integer	
headNeckAis2	AIS code with second highest severity among head/neck injuries	Integer AIS codes of 9 are not considered for ranking severities	
headNeckSev2	Severity of head/neck injury with second highest severity	Integer	
headNeckAis3	AIS code with third highest severity among head/neck injuries	Integer AIS codes of 9 are not considered for ranking severities	
headNeckSev3	Severity of head/neck injury with third highest severity	Integer	

¹ Recategorization of the region of some injuries (mostly abrasions, contusions, hematomas, lacerations, avulsions, and burns in specific regions being coded to “external”) resulted in more than three recorded injuries per region for some cases. In these cases only the three worst injuries within an anatomical region are included in the dataset.

² The AIS 1998 Update was used to code the vast majority of the injuries. Injuries coded in 1990 or 2005 were converted to 1998 predot and severity codes when possible. A small number of injuries coded in 2005 could not be converted to 1998 and remain in the 2005 coding.

cases (n=2,220)			
Name	Label/Description	Format	Notes
maxHeadNeckSev	Maximum severity of head/neck injuries	Integer This variable differs from headNeckSev1 in that it takes on a value of zero when there are no head/neck injuries or the only head/neck injuries are those with a severity of 9 provided the case has at least one injury in any region with a non-9 severity. If there are no injuries with a non-9 severity, this variable is missing.	
faceAis1	AIS code with maximum severity among face injuries	Integer AIS codes of 9 are not considered for ranking severities	
faceSev1	Severity of face injury with maximum severity	Integer	
faceAis2	AIS code with second highest severity among face injuries	Integer AIS codes of 9 are not considered for ranking severities	
faceSev2	Severity of face injury with second highest severity	Integer	
faceAis3	AIS code with third highest severity among face injuries	Integer AIS codes of 9 are not considered for ranking severities	
faceSev3	Severity of face injury with third highest severity	Integer	
maxFaceSev	Maximum severity of face injuries	Integer See note for maxHeadNeckSev	
chestAis1	AIS code with maximum severity among chest injuries	Integer AIS codes of 9 are not considered for ranking severities	
chestSev1	Severity of chest injury with maximum severity	Integer	
chestAis2	AIS code with second highest severity among chest injuries	Integer AIS codes of 9 are not considered for ranking severities	
chestSev2	Severity of chest injury with second highest severity	Integer	
chestAis3	AIS code with third highest severity among chest injuries	Integer AIS codes of 9 are not considered for ranking severities	
chestSev3	Severity of chest injury with third highest severity	Integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
maxChestSev	Maximum severity of chest injuries	Integer See note for maxHeadNeckSev	
abdomenAis1	AIS code with maximum severity among abdomen injuries	Integer AIS codes of 9 are not considered for ranking severities	
abdomenSev1	Severity of abdomen injury with maximum severity	Integer	
abdomenAis2	AIS code with second highest severity among abdomen injuries	Integer AIS codes of 9 are not considered for ranking severities	
abdomenSev2	Severity of abdomen injury with second highest severity	Integer	
abdomenAis3	AIS code with third highest severity among abdomen injuries	Integer AIS codes of 9 are not considered for ranking severities	
abdomenSev3	Severity of abdomen injury with third highest severity	Integer	
maxAbdomenSev	Maximum severity of abdomen injuries	Integer See note for maxHeadNeckSev	
externalAis1	AIS code with maximum severity among external injuries	Integer AIS codes of 9 are not considered for ranking severities	
externalSev1	Severity of external injury with maximum severity	Integer	
externalAis2	AIS code with second highest severity among external injuries	Integer AIS codes of 9 are not considered for ranking severities	
externalSev2	Severity of external injury with second highest severity	Integer	
externalAis3	AIS code with third highest severity among external injuries	Integer AIS codes of 9 are not considered for ranking severities	
externalSev3	Severity of external injury with third highest severity	Integer	
maxExternalSev	Maximum severity of external injuries	Integer See note for maxHeadNeckSev	
extremityAis1	AIS code with maximum severity among injuries to extremities	Integer AIS codes of 9 are not considered for ranking severities	

cases (n=2,220)			
Name	Label/Description	Format	Notes
extremitySev1	Severity of extremity injury with maximum severity	Integer	
extremityAis2	AIS code with second highest severity among injuries to extremities	Integer AIS codes of 9 are not considered for ranking severities	
extremitySev2	Severity of extremity injury with second highest severity	Integer	
extremityAis3	AIS code with third highest severity among injuries to extremities	Integer AIS codes of 9 are not considered for ranking severities	
extremitySev3	Severity of extremity injury with third highest severity	Integer	
maxExtremitySev	Maximum severity of injuries to extremities	Integer See note for maxHeadNeckSev	
headAis1	AIS code with maximum severity among head injuries	Integer AIS codes of 9 are not considered for ranking severities	
headSev1	Severity of head injury with maximum severity	Integer	
headAis2	AIS code with second highest severity among head injuries	Integer AIS codes of 9 are not considered for ranking severities	
headSev2	Severity of head injury with second highest severity	Integer	
headAis3	AIS code with third highest severity among head injuries	Integer AIS codes of 9 are not considered for ranking severities	
headSev3	Severity of head injury with third highest severity	Integer	
maxHeadSev	Maximum severity of head injuries	Integer See note for maxHeadNeckSev	
iss	Injury Severity Score (ISS)	Integer Any injury coded AIS 6 is automatically assigned an ISS of 75. ISS is not calculated for cases who have one or more injuries with a severity of 9 (except for cases that have an injury with a severity of 6).	
niss	New Injury Severity Score (NISS)	Integer ISS is not calculated for cases with one or more injuries with a severity of 9 (except for cases that have an injury with a severity of 6).	

cases (n=2,220)			
Name	Label/Description	Format	Notes
callToVehicleFluidArrMin	Minutes from 911 call received to fluid vehicle arrival	Numeric	
callToFluidHungMin	Minutes from 911 call received to study fluid hung	Numeric	
<i>Patient Characteristics Pre-Randomization</i>			
p1sbp	Initial SBP (mmHg)	Integer	
p1bpnd	Initial SBP not detectable ³	0= Detectable; 1=Not Detectable	
p1rsp	Initial RR (breaths/min)	Integer	
p1rrna	Initial RR NA/NR	0=Not NA/NR; 1=NA/NR	
p1gcse	Initial GCS Eye	Integer	
p1gcsv	Initial GCS Verbal	Integer	
p1gcsm	Initial GCS Motor	Integer	
gcs1	Initial Total GCS	Integer	
pqsbp	Qualifying SBP (mmHg)	Integer	
pqbpnd	Qualifying SBP not detectable	0=Unselected; 1=Selected	
pqgcse	Qualifying GCS Eye (without paralytics)	Integer	
pqgcsv	Qualifying GCS Verbal (without paralytics)	Integer	
pqgcsm	Qualifying GCS Motor (without paralytics)	Integer	
pqhr	Qualifying HR (heart rate) (beats/min)	Integer	
gcsq	Qualifying Total GCS	Integer	
rts	Revised Trauma Score (RTS)	Numeric	
triss	TRISS Probability Outcome	Numeric	
<i>Randomization Characteristics</i>			
stfml	Study fluid given (mL)	Integer	
stfini	Where was study fluid started?	1=Pre-hospital; 2=ED/hospital	
<i>Inclusion criteria:</i>			
sbp70	Pre-hospital: SBP<= 70	0=No; 1=Yes	
hemr	Pre-hospital: SBP 71-90 & HR>=108	0=No; 1=Yes	
hypco	Intended shock cohort	0=Unselected; 1=Selected	
gcsl8	Pre-hospital: GCS <=8	0=No; 1=Yes	
tbico	Intended TBI cohort	0=Unselected; 1=Selected	
<i>Exclusion criteria:</i>			

³ The operations manual notes that the “Not Detectable” option for Initial SBP, Qualifying SBP, Best field SBP after study fluid and Lowest Field SBP is checked only in those instances where the patient had a detectable pulse, but the blood pressure was not able to be detected. Implied in this is that there was an attempt to get a blood pressure. This is different than a patient who is in full arrest and has no detectable blood pressure AND no detectable pulse, in which case the values for HR and SBP would be zero.

cases (n=2,220)			
Name	Label/Description	Format	Notes
xchild	Age <= 14 or weight <= 50 kg if age unknown	0=No 1=Yes	
xcpr	Ongoing pre-hospital CPR	0=No 1=Yes	
xancpr	Any pre-hospital CPR prior to study fluid	0=No 1=Yes	
xbp190	Any pre-hospital hypotension (SBP ≤ 90) prior to study fluid	0=No 1=Yes	
xfluid	Administration of > 2 L of crystalloid or any amount of colloid, blood product, or Mannitol	0=No 1=Yes	
xhyph	Severe hypothermia (suspected T < 28 C)	0=No 1=Yes	
xdrown	Drowning or asphyxia due to hanging	0=No 1=Yes	
xburn	Burns TBSA > 20%	0=No 1=Yes	
xhead	Isolated penetrating injury to the head	0=No 1=Yes	
xnoiv	No pre-hospital intravenous access	0=No 1=Yes	
xtime	Time call received at dispatch to study intervention > 4 hrs	0=No 1=Yes	
<i>Time Record</i>			
crOrder	Event order: call received at dispatch	Integer	
evdOrder	Event order: enrolling vehicle dispatch	Integer	
sfaOrder	Event order: enrolling vehicle arrival	Integer	
sfhOrder	Event order: study fluid hung	Integer	
edaOrder	Event order: ED arrival	Integer	
rtOrder	Event order: resus terminated	Integer	
crNdt	No documented time: call received at dispatch	0=unselected; 1=selected	
evdNdt	No documented time: enrolling vehicle dispatch	0=unselected; 1=selected	
sfaNdt	No documented time: enrolling vehicle arrival	0=unselected; 1=selected	
sfhNdt	No documented time: study fluid hung	0=unselected; 1=selected	
edaNdt	No documented time: ED arrival	0=unselected; 1=selected	
rtNdt	No documented time: resus terminated	0=unselected; 1=selected	
eventPath	Event sequence	Character	

cases (n=2,220)			
Name	Label/Description	Format	Notes
diffEpCd	Minutes from episode time to call to dispatch	Numeric	
tmcrevd	911 call to enrolling vehicle dispatch (min)	Numeric	
tmcrsfa	911 call to study fluid vehicle arrival (min)	Numeric	
tmcrsfh	911 call to study fluid hung (min)	Numeric	
tmevdsfa	Enroll vehicle dispatch to arrived (min)	Numeric	
tmsfasfh	Arrived to fluid hung (min)	Numeric	
tmsfheda	Fluid hung to ED arrival	Numeric	
tmems	EMS total time 911 call to ED arrival (min)	Numeric	
<i>Neurological</i>			
hasNeuro	Has the neuro form	0=No; 1=Yes	
bgcs1	Best GCS Day 1	integer	
bgcs2	Best GCS Day 2	integer	
bgcs3	Best GCS Day 3	integer	
bgcs4	Best GCS Day 4	integer	
bgcs5	Best GCS Day 5	integer	
icpmon	ICP Monitoring?	0=No; 1=Yes	
tmedadmtomon	Time from ED Admit to ICP Monitor place (hours)	Numeric	
opnicp	Opening ICP (mmHg)	Integer	
inicpp	Initial CPP (mmHg)	Integer	
othint	Other intervention for intracranial hypertension	0=No; 1=Yes	
anysez	Any seizures?	0=No; 1=Yes	
namon	Treatment requiring Na monitoring?	0=No; 1=Yes	
hiicp1	Highest ICP: 0-12 hrs	Integer	
hiicp2	Highest ICP: 12-24 hrs	Integer	
hiicp3	Highest ICP: 24-36 hrs	Integer	
hiicp4	Highest ICP: 36-48 hrs	Integer	
hiicp5	Highest ICP: 48-72 hrs	Integer	
hiicp6	Highest ICP: 72-96 hrs	Integer	
hiicp7	Highest ICP: 96-120 hrs	integer	
hricph1	Num hrs ICP > 25: 0-12 hrs	numeric	
hricph2	Num hrs ICP > 25: 12-24 hrs	numeric	
hricph3	Num hrs ICP > 25: 24-36 hrs	numeric	
hricph4	Num hrs ICP > 25: 36-48 hrs	numeric	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hricph5	Num hrs ICP > 25: 48-72 hrs	numeric	
hricph6	Num hrs ICP > 25: 72-96 hrs	numeric	
hricph7	Num hrs ICP > 25: 96-120 hrs	numeric	
hrcpp1	Num hrs CPP < 60: 0-12 hrs	numeric	
hrcpp2	Num hrs CPP < 60: 12-24 hrs	numeric	
hrcpp3	Num hrs CPP < 60: 24-36 hrs	numeric	
hrcpp4	Num hrs CPP < 60: 36-48 hrs	numeric	
hrcpp5	Num hrs CPP < 60: 48-72 hrs	numeric	
hrcpp6	Num hrs CPP < 60: 72-96 hrs	numeric	
hrcpp7	Num hrs CPP < 60: 96-120 hrs	numeric	
mannit1	Total gm/kg Mannitol: 0-12 hrs	numeric	
mannit2	Total gm/kg Mannitol: 12-24 hrs	numeric	
mannit3	Total gm/kg Mannitol: 24-36 hrs	numeric	
mannit4	Total gm/kg Mannitol: 36-48 hrs	numeric	
mannit5	Total gm/kg Mannitol: 48-72 hrs	numeric	
mannit6	Total gm/kg Mannitol: 72-96 hrs	numeric	
mannit7	Total gm/kg Mannitol: 96-120 hrs	numeric	
monnd1	ICP Monitoring NA/NR: 0-12 hrs	0=unselected; 1=selected	
monnd2	ICP Monitoring NA/NR: 12-24 hrs	0=unselected; 1=selected	
monnd3	ICP Monitoring NA/NR: 24-36 hrs	0=unselected; 1=selected	
monnd4	ICP Monitoring NA/NR: 36-48 hrs	0=unselected; 1=selected	
monnd5	ICP Monitoring NA/NR: 48-72 hrs	0=unselected; 1=selected	
monnd6	ICP Monitoring NA/NR: 72-96 hrs	0=unselected; 1=selected	
monnd7	ICP Monitoring NA/NR: 96-120 hrs	0=unselected; 1=selected	
hypvnt1	Hyperventilation (CO ₂ < 30): 0-12 hrs	0=No; 1=Yes	
hypvnt2	Hyperventilation (CO ₂ < 30): 12-24 hrs	0=No; 1=Yes	
hypvnt3	Hyperventilation (CO ₂ < 30): 24-36 hrs	0=No; 1=Yes	
hypvnt4	Hyperventilation (CO ₂ < 30): 36-48 hrs	0=No; 1=Yes	
hypvnt5	Hyperventilation (CO ₂ < 30): 48-72 hrs	0=No; 1=Yes	
hypvnt6	Hyperventilation (CO ₂ < 30): 72-96 hrs	0=No; 1=Yes	
hypvnt7	Hyperventilation (CO ₂ < 30): 96-120 hrs	0=No; 1=Yes	
cranio1	Craniotomy: 0-12 hrs	0=No; 1=Yes	
cranio2	Craniotomy: 12-24 hrs	0=No; 1=Yes	
cranio3	Craniotomy: 24-36 hrs	0=No; 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
cranio4	Craniotomy: 36-48 hrs	0=No; 1=Yes	
cranio5	Craniotomy: 48-72 hrs	0=No; 1=Yes	
cranio6	Craniotomy: 72-96 hrs	0=No; 1=Yes	
cranio7	Craniotomy: 96-120 hrs	0=No; 1=Yes	
vntrcl1	Ventriculostomy: 0-12 hrs	0=No; 1=Yes; 2=Discharged	
vntrcl2	Ventriculostomy: 12-24 hrs	0=No; 1=Yes; 2=Discharged	
vntrcl3	Ventriculostomy: 24-36 hrs	0=No; 1=Yes; 2=Discharged	
vntrcl4	Ventriculostomy: 36-48 hrs	0=No; 1=Yes; 2=Discharged	
vntrcl5	Ventriculostomy: 48-72 hrs	0=No; 1=Yes; 2=Discharged	
vntrcl6	Ventriculostomy: 72-96 hrs	0=No; 1=Yes; 2=Discharged	
vntrcl7	Ventriculostomy: 96-120 hrs	0=No; 1=Yes; 2=Discharged	
vntrdn1	Ventric drainage (mL): 0-12 hrs	numeric	This item was dropped in version 1.02 and later.
vntrdn2	Ventric drainage (mL): 12-24 hrs	numeric	This item was dropped in version 1.02 and later.
vntrdn3	Ventric drainage (mL): 24-36 hrs	numeric	This item was dropped in version 1.02 and later.
vntrdn4	Ventric drainage (mL): 36-48 hrs	numeric	This item was dropped in version 1.02 and later.
vntrdn5	Ventric drainage (mL): 48-72 hrs	numeric	This item was dropped in version 1.02 and later.
vntrdn6	Ventric drainage (mL): 72-96 hrs	numeric	This item was dropped in version 1.02 and later.
vntrdn7	Ventric drainage (mL): 96-120 hrs	numeric	This item was dropped in version 1.02 and later.
tmedadmtooint1	Time from ED admit to other intervention: 1 (hrs)	numeric	
tmedadmtooint2	Time from ED admit to other intervention: 2 (hrs)	numeric	
tmedadmtooint3	Time from ED admit to other intervention: 3 (hrs)	numeric	
seizur1	Seizure: 0-12 hrs	0=No; 1=Yes	
seizur2	Seizure: 12-24 hrs	0=No; 1=Yes	
seizur3	Seizure: 24-36 hrs	0=No; 1=Yes	
seizur4	Seizure: 36-48 hrs	0=No; 1=Yes	
seizur5	Seizure: 48-72 hrs	0=No; 1=Yes	
seizur6	Seizure: 72-96 hrs	0=No; 1=Yes	
seizur7	Seizure: 96-120 hrs	0=No; 1=Yes	
anconv1	While on anticonvulsant: 0-12 hrs	0=No; 1=Yes	
anconv2	While on anticonvulsant: 12-24 hrs	0=No; 1=Yes	
anconv3	While on anticonvulsant: 24-36 hrs	0=No; 1=Yes	
anconv4	While on anticonvulsant: 36-48 hrs	0=No; 1=Yes	
anconv5	While on anticonvulsant: 48-72 hrs	0=No; 1=Yes	
anconv6	While on anticonvulsant: 72-96 hrs	0=No; 1=Yes	
anconv7	While on anticonvulsant: 96-120 hrs	0=No; 1=Yes	
na1601	While Na > 160: 0-12 hrs	0=No; 1=Yes	
na1602	While Na > 160: 12-24 hrs	0=No; 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
na1603	While Na > 160: 24-36 hrs	0=No; 1=Yes	
na1604	While Na > 160: 36-48 hrs	0=No; 1=Yes	
na1605	While Na > 160: 48-72 hrs	0=No; 1=Yes	
na1606	While Na > 160: 72-96 hrs	0=No; 1=Yes	
na1607	While Na > 160: 96-120 hrs	0=No; 1=Yes	
<i>Protocol violations:</i>			
pvnum	Number of different types of protocol violation	Integer Multiple violations of the same type (e.g. sodium monitoring deviation) are not counted.	
majpvnum	Number of different types of major protocol violation	Integer Multiple violations of the same type (e.g. sodium monitoring deviation) are not counted.	
minpvnum	Number of different types of minor protocol violation	Integer Multiple violations of the same type (e.g. sodium monitoring deviation) are not counted.	
<i>Major protocol violations</i>			
intos	Intraosseous administration	0=No; 1=Yes	
phiel	Physiologically ineligible	0=No; 1=Yes	
othma	Other major protocol violation	0=No; 1=Yes	
<i>Minor protocol violations</i>			
somt	Sodium monitoring deviation	0=No; 1=Yes	
delay	Delayed CTC notification	0=No; 1=Yes	
trmpt	Transfer/ED patient enrolled	0=No; 1=Yes	
lt250	<250 mL study fluid administered	0=No; 1=Yes	
nroch	Patient taken to non-ROC hospital	0=No; 1=Yes	
gt2l	>2 L or any amount of RBCs, Colloid, or Mannitol	0=No; 1=Yes	
pvbong	Bag open, not given	0=No; 1=Yes	
othmi	Other minor protocol violation	0=No; 1=Yes	
<i>Pre-hospital, post-randomization treatment, and response</i>			
pbsbp	Best field SBP after study fluid (mmHg)	integer	
pbbpyn	Best field SBP not detectable ³	0=Unselected; 1=Selected	
phhr	Highest field HR (heart rate) beats/min	integer	
palsbp	Lowest field SBP (mmHg)	integer	
plbpnd	Lowest field SBP not detectable ³	0=Unselected 1=Selected	
padair	Pre-hospital: Advanced airway attempted	0=No 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
pcombi	Pre-hospital: Combitude	0=No; 1=Yes; 2=Failed	
psupglot	Pre-hospital: supraglottic airway	0=No; 1=Yes; 2=Failed	LMA or King
pett	Pre-hospital: ET (endotracheal) tube	0=No; 1=Yes; 2=Failed	
pothair	Pre-hospital: Other airway	0=No; 1=Yes; 2=Failed	
pthora	Pre-hospital: Needle thoracostomy	0=No; 1=Yes	
pothpr	Pre-hospital: Other procedures	0=No; 1=Yes	
pmann	Pre-hospital: Mannitol given?	0=No; 1=Yes	
pmeds	Pre-hospital: Medications given?	0=No; 1=Yes	
ppara	Pre-hospital: Paralytics	0=No; 1=Yes	
pnarc	Pre-hospital: Narcotics	0=No; 1=Yes	
pbenzo	Pre-hospital: Benzodiazepines	0=No; 1=Yes	
plido	Pre-hospital: Lidocaine	0=No; 1=Yes	
petomi	Pre-hospital: Etomidate	0=No; 1=Yes	
pothmd	Pre-hospital: Other medication	0=No; 1=Yes	
pcryst	Pre-hospital: Crystalloid (NS, LR, Plasmalyte, etc.) (mL)	integer	
prbcm1	Pre-hospital: RBC (red blood cells) (mL)	integer	
pmanml	Pre-hospital: Mannitol (mL)	integer	
stfml	Study fluid amount (mL)	integer	
prbcpr	RBCs given before study fluid	0=No; 1=Yes	
p2lcry	More than 2L of crystalloid administered before study fluid	0=No; 1=Yes	
pmanpr	Mannitol given before study fluid	0=No; 1=Yes	
t1mode	Pre-hospital: Transport mode 1	0=Ground; 1=Air	
t2mode	Pre-hospital: Transport mode 2	0=Ground; 1=Air	
Adverse events:			
padvev	Pre-hospital: Any adverse events?	0=No, 1=Yes	
Disposition:			
pdisp	Pre-hospital: Disposition	0=Died at scene; 1=Died en route; 2=Admitted to ED	
ppdthc	Pre-hospital: Primary cause of death	1=Hypovolemic shock; 2=Hypoxia; 3=Cardiac dysfunction; 4=TBI; 5=Anoxic brain injury; 8=Unknown; 7=Other	
psdthc	Pre-hospital: Secondary cause of death	1=Hypovolemic shock; 2=Hypoxia; 3=Cardiac dysfunction; 4=TBI; 5=Anoxic brain injury; 8=Unknown; 7=Other	
callToEdAdmit Min	Time between 911 call and ED admit (minutes)	numeric	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hasEdAdmit	Has ED admit form	0=No 1=Yes	
<i>Vital Signs with 4 hours of ED admit:</i>			
e1gcse	First ED GCS: eye component	Integer	
e1remm	First ED GCS: right pupil size	Numeric	
e1rrea	First ED GCS: right pupil reactivity	0=No; 1=Yes	
e1lemm	First ED GCS: left pupil size	Numeric	
e1lrea	First ED GCS: left pupil reactivity	0=No; 1=Yes	
e1gcsv	First ED GCS: verbal component	Integer	
e1intb	First ED GCS: intubated?	0=No; 1=Yes	
e1gcsM	First ED GCS: motor component	Integer	
e1para	First ED GCS: chemically paralyzed?	0=No; 1=Yes	
e1gcs	First ED GCS: combined score	integer	
e1sbp	First ED SBP (systolic blood pressure)	integer	
elsbp	Lowest ED SBP (systolic blood pressure)	integer	
e1hr	First ED heart rate (beats per minute)	integer	
ehhr	Highest ED heart rate (beats per minute)	integer	
firstTemp	First ED temperature (Celsius)	numeric	
e1tmsr	First ED temperature: source	1=Rectal; 2=Axillary; 3=Oral; 4=Tympanic; 5=Core	
<i>Labs within 4 hours of ED admit:</i>			
fio21	First ED % FiO ₂	Numeric	
ph1	First ED pH	Numeric	
pco21	First ED pCO ₂ (mmHg)	Integer	
po21	First ED paO ₂ (mmHg)	Integer	
sao21	First ED SaO ₂ (%)	Integer	
fio2w	Worst ED % FiO ₂	numeric	
phw	Worst ED pH	numeric	
pco2w	Worst ED pCO ₂ (mmHg)	integer	
po2w	Worst ED paO ₂ (mmHg)	integer	
sao2w	Worst ED SaO ₂ (%)	integer	
firstLact	First ED lactate (mmol/L)	numeric	
firstHgb	First ED hemoglobin (g/dL)	numeric	
lowestHgb	Lowest ED hemoglobin (g/dL)	numeric	
inr1v	First ED INR (International Normalized Ratio)	numeric	
pt1ss	First ED PT (pro-thrombin time) (seconds)	numeric	

cases (n=2,220)			
Name	Label/Description	Format	Notes
ptt1ss	First ED PTT (partial thromboplastin time) (seconds)	numeric	
pltlt1v	First ED Platelet (x 10 ³ /uL)	integer	
firstFib	First ED Fibrinogen (mg/dL)	integer	
Other ED:			
varrhy	Any ventricular arrhythmias requiring intervention?	0=No; 1=Yes	
eintub	Intubation?	0=Not intubated; 1=Arrived intubated; 2=Intubated in ED; 3=Surgical airway in ED	
eangio	Angio suite for hemorrhage control?	0=No; 1=Yes	
embol	Embolization?	0=No; 1=Yes	
eadvev	Any adverse events uncovered during ED admit?	0=No; 1=Yes	
ed2mod	Transfer to second ED: mode	1=Air; 2=Ground	
edisps	ED disposition	0=Death in ED; 1=Operating Room; 2=ICU; 3=Intermediate Care Unit; 4=Regular ward/telemetry; 5=Discharged or left AMA; 7=Transfer to another ED	
edTimeMin	Length of time in ED (minutes)	Numeric Time of final disposition minus first ED admit time.	
ED death:			
epdthc	ED death: primary cause	1=Hypovolemic shock; 2=Hypoxia; 3=Cardiac dysfunction; 4=TBI; 5=Anoxic brain injury; 7=Other; 8=Unknown	
esdthc	ED death: secondary cause	1=Hypovolemic shock; 2=Hypoxia; 3=Cardiac dysfunction; 4=TBI; 5=Anoxic brain injury; 7=Other; 8=Unknown	
edproc	ED death: were any ED procedures performed?	0=No; 1=Yes	
edThora	ED death: had thoracotomy in ED?	0=No; 1=Yes	
edPac	ED death: had PA Catheter in ED?	0=No; 1=Yes	
edCvp	ED death: had CVP Catheter in ED?	0=No; 1=Yes	
edOthProc	ED death: had other procedure in ED?	0=No; 1=Yes	
Raw ED Vital Signs⁴:			
edcount	Number of ED forms for this case	Integer	
felgcse	Final ED: first GCS eye	Integer	
felremm	Final ED: first R pupil size (mm)	Numeric	

⁴ Some cases have two ED forms – the vital signs for each ED visit are listed in the “initial” (i) and “final” (f) version of the vital sign variables below. For those with only one ED form the initial and final values are the same.

cases (n=2,220)			
Name	Label/Description	Format	Notes
felrrea	Final ED: first R pupil reactive?	0=No; 1=Yes	
fellemm	Final ED: first L pupil size (mm)	Numeric	
felrrea	Final ED: first L pupil reactive?	0=No; 1=Yes	
felgsv	Final ED: first GCS verbal	Integer	
felintb	Final ED: intubated?	0=No; 1=Yes	
felgsm	Final ED: first GCS motor	Integer	
felpara	Final ED: chemically paralyzed	0=No; 1=Yes	
felsbp	Final ED: first SBP	Integer	
feldbp	Final ED: first DBP	Integer	
felhr	Final ED: first HR	Integer	
felsbp	Final ED: lowest SBP	Integer	
feldbp	Final ED: lowest DBP	Integer	
fehhr	Final ED: highest HR	Integer	
feltemp	Final ED: first temperature value	numeric	
feltnf	Final ED: first temperature units	1=Celsius; 2=Fahrenheit; 3=NA/NR	
feltnsr	Final ED: first temperature source	1=Rectal; 2=Axillary; 3=Oral; 4=Tympanic; 5=Core	
feltempcel	Final ED: first temperature (Celsius)	Numeric	
ielgse	Initial ED: first GCS eye	Integer	
ielremm	Initial ED: first R pupil size (mm)	Numeric	
ielrrea	Initial ED: first R pupil reactive?	0=No; 1=Yes	
iellemm	Initial ED: first L pupil size (mm)	Numeric	
ielrrea	Initial ED: first L pupil reactive?	0=No; 1=Yes	
ielgsv	Initial ED: first GCS verbal	Integer	
ielintb	Initial ED: intubated?	0=No; 1=Yes	
ielgsm	Initial ED: first GCS motor	Integer	
ielpara	Initial ED: chemically paralyzed	0=No; 1=Yes	
ielsbp	Initial ED: first SBP	Integer	
ieldbp	Initial ED: first DBP	Integer	
ielhr	Initial ED: first HR	Integer	
ielsbp	Initial ED: lowest SBP	Integer	
ieldbp	Initial ED: lowest DBP	Integer	
iehhr	Initial ED: highest HR	Integer	
ieltemp	Initial ED: first temperature value	Numeric	
ieltnf	Initial ED: first temperature units	1=Celsius; 2=Fahrenheit; 3=NA/NR	
ieltnsr	Initial ED: first temperature source	1=Rectal; 2=Axillary; 3=Oral; 4=Tympanic; 5=Core	
ieltempcel	Initial ED: first temperature Celsius	Numeric	
Outcomes			
knownDead	Case known to be dead	0=No; 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
edAdmitToDeathDays	Number of days from first ED admit to death	Numeric	
edAdmitToDeathDaysMeth	Method of calculating number of days from first ED admit to death	1=difference between datetimes 2=difference between dates 3=death, but only know range	
edAdmitToHospitalDays	Number of days from first ED admit to hospital disposition		
edAdmitToHospitalDaysMeth	Method of calculating number of days from first ED admit to hospital disposition	1=difference between datetimes 2=difference between dates	
diedInField	Died in the field	0=No; 1=Yes	
diedInFieldOrED	Died in the field or ED	0=No; 1=Yes	
diedInFieldOrEDOrHspLe6h	Died in the field or ED or in the hospital within 6 hours of first ED admit	0=No; 1=Yes	
diedInFieldOrEDOrHspLe24h	Died in the field or ED or in the hospital within 24 hours of first ED admit	0=No; 1=Yes	
diedInFieldOrEDOrHspLe28d	Died in the field or ED or in the hospital or elsewhere within 28 days of first ED admit	0=No; 1=Yes	
daysToDischarge	Number of days from ED admit until discharge	Numeric	
daysToDischargeMeth	Method for calculating days to discharge	1=difference between datetimes 2=difference between dates	
TBI Outcomes:			
tbiform	Has at least one TBI outcome form	0=No; 1=Yes	
intvdcday	Discharge TBI interview date – days from episode	days from episode date	
gosedc	GOSE (discharge)	Integer	
drsdc	DRS (discharge)	Integer	
intv1mday	1-mo TBI interview date – days from episode	Integer	
gose1m	GOSE (1-month)	Integer	
drs1m	DRS (1-month)	Integer	
intv6mday	6-mo TBI interview date – days from episode	Integer	
gose6m	GOSE (6-month)	Integer	
drs6m	DRS (6-month)	Integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
rspdc	GOSE interview respondent (discharge)	1=Patient alone; 2=Caregiver alone; 3=Patient & caregiver; 4=Chart	
rsp1m	GOSE interview respondent (1-month)	1=Patient alone; 2=Caregiver alone; 3=Patient & caregiver; 4=Chart	
rsp6m	GOSE interview respondent (6-month)	1=Patient alone; 2=Caregiver alone; 3=Patient & caregiver; 4=Chart	
gosedc5	GOSE (discharge) >= 5	0=No; 1=Yes	
gose1m5	GOSE (1-month) >= 5	0=No; 1=Yes	
gose6m5	GOSE (6-month) >= 5	0=No; 1=Yes	
pstinjdc	Interval (days) between discharge TBI outcome interview and injury	Integer	
pstinj1m	Interval (days) between 1-month TBI outcome interview and injury	Integer	
pstinj6m	Interval (days) between 6-month TBI outcome interview and injury	Integer	
cargvrdc	Caregiver at discharge TBI outcome interview	1=Relative; 2=Friend; 3=Professional	
cargvr1m	Caregiver at 1-month TBI outcome interview	1=Relative; 2=Friend; 3=Professional	
cargvr6m	Caregiver at 6-month TBI outcome interview	1=Relative; 2=Friend; 3=Professional	
hrswptdc	Hours caregiver spent with patient per day at discharge TBI outcome interview	Integer	
hrswpt1m	Hours caregiver spent with patient per day at 1-month TBI outcome interview	Integer	
hrswpt6m	Hours caregiver spent with patient per day at 6-month TBI outcome interview	Integer	
Manuscript Outcomes:			
ms_surv28d	Manuscript 28-day survival	0 = Dead; 1 = Alive	
ms_surv24h	Manuscript 6-day survival	0 = Dead; 1 = Alive	
ms_discharged Alive	Manuscript discharged alive	0 = Dead; 1 = Alive	
alive28d	Indicates whether patient was alive at day 28	0 = No; 1 = Yes	
rehosp	Rehospitalization reported at 1-month follow-up	0=No; 1=Yes; 2=Unknown	
Care Guidelines			

cases (n=2,220)			
Name	Label/Description	Format	Notes
hasCg	Has care guidelines form	0=No; 1=Yes; 2=Unknown	
cvpcth	CVP catheter used during first 48 hrs of resus (from ED admit)	0=No; 1=Yes	
pacth	PA catheter used during first 48 hrs of resus (from ED admit)	0=No; 1=Yes	
cggluc3	Care guidelines glucose measure (mg/dL): 3	0=No; 1=Yes	
cggluc4	Care guidelines glucose measure (mg/dL): 4	numeric	
cggluc5	Care guidelines glucose measure (mg/dL): 5	numeric	
cgglund3	Glucose measure NA/NR: 3	numeric	
cgglund4	Glucose measure NA/NR: 4	0=unselected; 1=selected	
cgglund5	Glucose measure NA/NR: 5	0=unselected; 1=selected	
cginsul3	Insulin drip?: 3	0=unselected; 1=selected	
cginsul4	Insulin drip?: 4	0=No; 1=Yes	
cginsul5	Insulin drip?: 5	0=No; 1=Yes	
cghgb3	Care guidelines lowest HgB measure (g/dL): 3	0=No; 1=Yes	
cghgb4	Care guidelines lowest HgB measure (g/dL): 4	numeric	
cghgb5	Care guidelines lowest HgB measure (g/dL): 5	numeric	
cghgbnd3	HgB measure NA/NR: 3	numeric	
cghgbnd4	HgB measure NA/NR: 4	0=unselected; 1=selected	
cghgbnd5	HgB measure NA/NR: 5	0=unselected; 1=selected	
cgxfusn3	Transfusion?: 3	0=unselected; 1=selected	
cgxfusn4	Transfusion?: 4	0=No; 1=Yes	
cgxfusn5	Transfusion?: 5	0=No; 1=Yes	
cgbenzdr3	Benzo drip?: 3	0=No; 1=Yes	
cgbenzdr4	Benzo drip?: 4	0=No; 1=Yes	
cgbenzdr5	Benzo drip?: 5	0=No; 1=Yes	
cgnarcdr3	Narcotic drip?: 3	0=No; 1=Yes	
cgnarcdr4	Narcotic drip?: 4	0=No; 1=Yes	
cgnarcdr5	Narcotic drip?: 5	0=No; 1=Yes	
cgpropdr3	Propofol drip?: 3	0=No; 1=Yes	
cgpropdr4	Propofol drip?: 4	0=No; 1=Yes	
cgpropdr5	Propofol drip?: 5	0=No; 1=Yes	
cgentntr3	Enteral nutrition?: 3	0=No; 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
egentnr4	Enteral nutrition?: 4	0=No; 1=Yes	
egentnr5	Enteral nutrition?: 5	0=No; 1=Yes	
egparnr3	Parenteral nutrition?: 3	0=No; 1=Yes	
egparnr4	Parenteral nutrition?: 4	0=No; 1=Yes	
egparnr5	Parenteral nutrition?: 5	0=No; 1=Yes	
ICU			
hasIcuForm	Case has ICU form?	0=No; 1=Yes	
tmedadmtoicu	Hours from first ED admit to to ICU Admit	Numeric	
tmedadmtointb	Hours from first ED admit to initial intubation	Numeric	
nrvnt	Never ventilated	0=Not selected; 1=Selected	
cxrday	Days since first ED admit for ARDS qualifying CXR	Integer	Missing unless ARDS indicated in cardventof dataset.
maxResp	Worst respiratory OD (organ dysfunction) score	Integer	See coding rules below.
maxRenal	Worst renal OD (organ dysfunction) score	Integer	See coding rules below.
maxHepatic	Worst hepatic OD (organ dysfunction) score	Integer	See coding rules below.
maxCardio	Worst cardiovascular OD (organ dysfunction) score	Integer	See coding rules below.
maxHemat	Worst hematologic OD (organ dysfunction) score	Integer	See coding rules below.
maxNeuro	Worst neurologic OD (organ dysfunction) score	Integer	See coding rules below.
ooIcu	Days alive out of ICU up to day 28	Integer	Cases who died before 28 days are assigned a value of 0. Cases transferred to another (non-ROC) acute facility directly from the ICU (before day 28) are set to missing.
ooHosp	Days alive out of hospital up to day 28	integer	Cases who died before 28 days are assigned a value of 0. Cases transferred to another (non-ROC) acute facility directly from the ICU (before day 28) are set to missing.
offVent	Ventilator-free days through day 28.	integer	Cases who died before 28 days are assigned a value of 0. Maximum value is 29 (i.e. no ventilation for days 0 through 28). Cases transferred to another (non-ROC) acute facility on a day that they were in the ICU are set to missing.
ardsYes	Had ARDS?	0=No 1=Yes	

cases (n=2,220)			
Name	Label/Description	Format	Notes
ardsFreeSurv	ARDS free survival to day 28?	0=No 1=Yes	A case who is both alive and never had ARDS through day 28 will have “Yes”. If the case died before day 28 or had ARDS before day 28 then the value is 0.
modScoreMeth 1	Worst MOD score method 1: simultaneous worst score	integer	If case died before day 28 a score of 24 is assigned. If not visiting the ICU or discharged from ICU within first two days (prior to data MODS data collection) a score of 0 is assigned. Cases transferred to another (non-ROC) acute facility directly from the ICU (before day 28) are set to missing. For days on which some components are not measured, the unmeasured components are given the lowest possible score.
modScoreMeth 2	Worst MOD score method 2: worst score for each component over ICU stay up to day 28	integer	If case died before day 28 a score of 24 is assigned. If not visiting the ICU or discharged from ICU within first two days (prior to data MODS data collection) a score of 0 is assigned. Cases transferred to another (non-ROC) acute facility directly from the ICU (before day 28) are set to missing.
hasResusForm	Has resuscitation/injury characteristics form	0=No;1=Yes	
hasHospForm	Has hospitalization form?	0=No;1=Yes	
<i>ED / Hospital fluids in first 24 hours:</i>			
edHospFluids	Fluids in the ED/hospital within 24 hours of episode (does not include Mannitol) (mL)	Integer Mannitol is excluded since it was not collected throughout the study. Does not include EBL.	
Cryst	Crystalloid (mL)	integer	
Mann	Mannitol (mL)	integer	
Othcoll	Other colloid (mL)	integer	
sal3pct	3% saline (mL)	integer	
Allogentrbc	Allogeneic RBCs (red blood cells) (mL)	integer	
Ffp	FFP (fresh frozen plasma) (mL)	integer	
Plate	Platelets (mL)	integer	
Cryop	Cryoprecipitate (mL)	integer	
Abt	Autologous blood transfusion (mL)	integer	
Ebl	Intraoperative EBL (estimated blood loss) (mL)	integer	
<i>Head CT results:</i>			
hctnum	Number of head CTs	integer	
tmhct1	Hours since first ED admit of first head CT	numeric	
hctday1	Days since episode date for first head CT	Integer 0 indicates the same day as the episode	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hctcod1	Marshall Head CT code for first head CT	1=Diffuse Injury I; 2=Diffuse Injury II 3=Diffuse Injury III; 4=Diffuse Injury IV 5=Mass Lesion; 6=Other	
hctna1	First head CT NA/NR	0=Unselected; 1=Selected	
tmhct2	Hours since first ED admit of second head CT	numeric	
hctday2	Days since episode date for second head CT	Integer 0 indicates the same day as the episode	
hctcod2	Marshall Head CT code for second head CT	1=Diffuse Injury I; 2=Diffuse Injury II 3=Diffuse Injury III; 4=Diffuse Injury IV 5=Mass Lesion; 6=Other	
hctna2	Second head CT NA/NR	0=Unselected; 1=Selected	
icbled2	Evidence of increased intracranial bleeding since previous head CT	0=No; 1=Yes	
tmhct3	Hours since first ED admit of third head CT	numeric	
hctday3	Days since episode date for third head CT	Integer 0 indicates the same day as the episode	
hctcod3	Marshall Head CT code for third head CT	1=Diffuse Injury I; 2=Diffuse Injury II; 3=Diffuse Injury III; 4=Diffuse Injury IV 5=Mass Lesion; 6=Other	
hctna3	Third head CT NA/NR	0=Unselected; 1=Selected	
icbled3	Evidence of increased intracranial bleeding since previous head CT	0=No; 1=Yes	
Labs:			
maxLact0to12	Highest lactate 0 to 12 hours (mmol/L)	numeric	
hlac1n	Highest lactate 0 to 12 hours: NA/NR	0=Unselected; 1=Selected	
maxLact12to24	Highest lactate 12 to 24 hours (mmol/L)	Numeric	
hlac2n	Highest lactate 12 to 24 hours: NA/NR	0=Unselected; 1=Selected	
wbdf1v	Worst base deficit 0 to 12 hours (mmol/L)	numeric	
wbdf1n	Worst base deficit 0 to 12 hours: NA/NR	0=Unselected; 1=Selected	
wbdf2v	Worst base deficit 12 to 24 hours (mmol/L)	numeric	
wbdf2n	Worst base deficit 12 to 24 hours: NA/NR	0=Unselected; 1=Selected	

cases (n=2,220)			
Name	Label/Description	Format	Notes
<i>Electrolytes:</i>			
admna	Admission sodium (mmol/L)	Integer. Earliest measure within 24 hours	
admCl	Admission chloride (mmol/L)	Integer. Earliest measure within 24 hours	
admKp	Admission K+ (mmol/L)	Integer. Earliest measure within 24 hours	
maxNa0to4	Max sodium within 4 hours of ED admit	Integer. Missing if there is no sodium measure recorded in the time range.	
maxNa4to12	Max sodium from 4 hours to 12 hours since ED admit	Integer. Missing if there is no sodium measure recorded in the time range.	
maxNa12to24	Max sodium from 12 hours to 24 hours since ED admit	Integer. Missing if there is no sodium measure recorded in the time range.	
maxNa24to48	Max sodium from 24 hours to 48 hours since ED admit	Integer. Missing if there is no sodium measure recorded in the time range.	
mxcl0004	Max Cl 0-4 hrs (mmol/L)	Integer. Missing if there is no sodium measure recorded in the time range.	
mxcl0412	Max Cl 4-12 hrs (mmol/L)	Integer. Missing if there is no sodium measure recorded in the time range.	
mxcl1224	Max Cl 12-24 hrs (mmol/L)	Integer. Missing if there is no sodium measure recorded in the time range.	
mxcl2448	Max Cl 24-48 hrs (mmol/L)	Integer. Missing if there is no sodium measure recorded in the time range.	
mxkp0004	Max K+ 0-4 hrs (mmol/L)	Integer. Missing if there is no potassium measure recorded in the time range.	
mxkp0412	Max K+ 4-12 hrs (mmol/L)	Integer. Missing if there is no potassium measure recorded in the time range.	
mxkp1224	Max K+ 12-24 hrs (mmol/L)	Integer. Missing if there is no potassium measure recorded in the time range.	
mxkp2448	Max K+ 24-48 hrs (mmol/L)	Integer. Missing if there is no potassium measure recorded in the time range.	
<i>Osmolarity:</i>			
osmoFirst	First osmolarity in ED/Hosp (mmol/L)	integer	
osmoMaxDay1	Highest osmolarity on day 1	integer	
osmoMaxDay2	Highest osmolarity on day 2	integer	
osmoMaxDay3	Highest osmolarity on day 3	integer	
osmoMaxDay4	Highest osmolarity on day 4	integer	
<i>Hospital procedures:</i>			
Hproc	Any major procedures?	0=No; 1=Yes	
procNum	Total number of procedures	Integer	
hpTrachNum	Tracheostomy: number during hospitalization	Integer	
hpTrachFirstDay	Tracheostomy: day of first	integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hpTrachNum7d	Tracheostomy: number through day 7	integer	
hpTrachNum28d	Tracheostomy: number through day 28	integer	
hpLapNum	Laparotomy: number during hospitalization	integer	
hpLapFirstDay	Laparotomy: day of first	integer	
hpLapNum7d	Laparotomy: number through day 7	integer	
hpLapNum28d	Laparotomy: number through day 28	integer	
hpLapEntNum	Laparotomy with enteric injury: number during hospitalization	integer	
hpLapEntFirstDay	Laparotomy with enteric injury: day of first	integer	
hpLapEntNum7d	Laparotomy with enteric injury: number through day 7	integer	
hpLapEntNum28d	Laparotomy with enteric injury: number through day 28	integer	
hpThoraNum	Thoracotomy/sternotomy/VATS: number during hospitalization	integer	
hpThoraFirstDay	Thoracotomy/sternotomy/VATS: day of first	integer	
hpThoraNum7d	Thoracotomy/sternotomy/VATS: number through day 7	integer	
hpThoraNum28d	Thoracotomy/sternotomy/VATS: number through day 28	integer	
hpDrainNum	Percutaneous drainage of empyema, lung abscess, intra-abdominal abscess: number during hospitalization	integer	
hpDrainFirstDay	Percutaneous drainage of empyema, lung abscess, intra-abdominal abscess: day of first	integer	
hpDrainNum7d	Percutaneous drainage of empyema, lung abscess, intra-abdominal abscess: number through day 7	integer	
hpDrainNum28d	Percutaneous drainage of empyema, lung abscess, intra-abdominal abscess: number through day 28	integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hpVascNum	Peripheral vascular: number during hospitalization	integer	
hpVascFirstDay	Peripheral vascular: day of first	integer	
hpVascNum7d	Peripheral vascular: number through day 7	integer	
hpVascNum28d	Peripheral vascular: number through day 28	integer	
hpFracNum	Open fixation of fracture: number during hospitalization	integer	
hpFracFirstDay	Open fixation of fracture: day of first	integer	
hpFracNum7d	Open fixation of fracture: number through day 7	integer	
hpFracNum28d	Open fixation of fracture: number through day 28	integer	
hpCranioNum	Craniotomy: number during hospitalization	integer	
hpCranioFirstDay	Craniotomy: day of first	integer	
hpCranioNum7d	Craniotomy: number through day 7	integer	
hpCranioNum28d	Craniotomy: number through day 28	integer	
hpNeckNum	Neck exploration: number during hospitalization	integer	
hpNeckFirstDay	Neck exploration: day of first	integer	
hpNeckNum7d	Neck exploration: number through day 7	integer	
hpNeckNum28d	Neck exploration: number through day 28	integer	
hpAngioNum	Angiographic control of hemorrhage: number during hospitalization	integer	
hpAngioFirstDay	Angiographic control of hemorrhage: day of first	integer	
hpAngioNum7d	Angiographic control of hemorrhage: number through day 7	integer	
hpAngioNum28d	Angiographic control of hemorrhage: number through day 28	integer	
<i>Hospital infections:</i>			
Infect	Any infections?	0=No; 1=Yes	
Pneudx	Pneumonia diagnosis method	1=Bronchoalveolar lavage; 2=Protected specimen brushing; 3=Positive sputum gram stain	

cases (n=2,220)			
Name	Label/Description	Format	Notes
infectNum	Total number of infections	integer	
hiPneuNum	Pneumonia: number during hospitalization	integer	
hiPneuFirstDay	Pneumonia: day of first	integer	
hiPneuNum7d	Pneumonia: number through day 7	integer	
hiPneuNum28d	Pneumonia: number through day 28	integer	
hiBloodNum	Bloodstream infection: number during hospitalization	integer	
hiBloodFirstDay	Bloodstream infection: day of first	integer	
hiBloodNum7d	Bloodstream infection: number through day 7	integer	
hiBloodNum28d	Bloodstream infection: number through day 28	integer	
hiUtiNum	UTI: number during hospitalization	integer	
hiUtiFirstDay	UTI: day of first	integer	
hiUtiNum7d	UTI: number through day 7	integer	
hiUtiNum28d	UTI: number through day 28	integer	
hiMeninNum	Meningitis: number during hospitalization	integer	
hiMeninFirstDay	Meningitis: day of first	integer	
hiMeninNum7d	Meningitis: number through day 7	integer	
hiMeninNum28d	Meningitis: number through day 28	integer	
hiCholecNum	Cholecystitis: number during hospitalization	integer	
hiCholecFirstDay	Cholecystitis: day of first	integer	
hiCholecNum7d	Cholecystitis: number through day 7	integer	
hiCholecNum28d	Cholecystitis: number through day 28	integer	
hiEmpyNum	Empyema: number during hospitalization	integer	
hiEmpyFirstDay	Empyema: day of first	integer	
hiEmpyNum7d	Empyema: number through day 7	integer	
hiEmpyNum28d	Empyema: number through day 28	integer	
hiPseudoColNum	Pseudomembranous colitis: number during hospitalization	integer	
hiPseudoColFirstDay	Pseudomembranous colitis: day of first	integer	
hiPseudoColNum7d	Pseudomembranous colitis: number through day 7	integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hiPseudoColNum28d	Pseudomembranous colitis: number through day 28	integer	
hiLineNum	Line infection: number during hospitalization	integer	
hiLineFirstDay	Line infection: day of first	integer	
hiLineNum7d	Line infection: number through day 7	integer	
hiLineNum28d	Line infection: number through day 28	integer	
hiWoundNum	Wound infection: number during hospitalization	integer	
hiWoundFirstDay	Wound infection: day of first	integer	
hiWoundNum7d	Wound infection: number through day 7	integer	
hiWoundNum28d	Wound infection: number through day 28	integer	
hiAbdomNum	Intra-abdominal abscess: number during hospitalization	integer	
hiAbdomFirstDay	Intra-abdominal abscess: day of first	integer	
hiAbdomNum7d	Intra-abdominal abscess: number through day 7	integer	
hiAbdomNum28d	Intra-abdominal abscess: number through day 28	integer	
hiOsteoNum	Osteomyelitis: number during hospitalization	integer	
hiOsteoFirstDay	Osteomyelitis: day of first	integer	
hiOsteoNum7d	Osteomyelitis: number through day 7	integer	
hiOsteoNum28d	Osteomyelitis: number through day 28	integer	
<i>Hospital non-infectious complications:</i>			
Nicomp	Any non-infectious complication?	0=No; 1=Yes	
compNum	Total number of non-infectious complications	integer	
hcFesNum	Fat embolism syndrome: number during hospitalization	integer	
hcFesFirstDay	Fat embolism syndrome: day of first	integer	
hcFesNum7d	Fat embolism syndrome: number through day 7	integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hcFesNum28d	Fat embolism syndrome: number through day 28	integer	
hcCaNum	Cardiac arrest: number during hospitalization	integer	
hcCaFirstDay	Cardiac arrest: day of first	integer	
hcCaNum7d	Cardiac arrest: number through day 7	integer	
hcCaNum28d	Cardiac arrest: number through day 28	integer	
hcMiNum	Myocardial infarction: number during hospitalization	integer	
hcMiFirstDay	Myocardial infarction: day of first	integer	
hcMiNum7d	Myocardial infarction: number through day 7	integer	
hcMiNum28d	Myocardial infarction: number through day 28	integer	
hcCiNum	Cerebral infarction: number during hospitalization	integer	
hcCiFirstDay	Cerebral infarction: day of first	integer	
hcCiNum7d	Cerebral infarction: number through day 7	integer	
hcCiNum28d	Cerebral infarction: number through day 28	integer	
hcDvtNum	Deep vein thrombosis (DVT): number during hospitalization	integer	
hcDvtFirstDay	Deep vein thrombosis (DVT): day of first	integer	
hcDvtNum7d	Deep vein thrombosis (DVT): number through day 7	integer	
hcDvtNum28d	Deep vein thrombosis (DVT): number through day 28	integer	
hcPeNum	Pulmonary embolus: number during hospitalization	integer	
hcPeFirstDay	Pulmonary embolus: day of first	integer	
hcPeNum7d	Pulmonary embolus: number through day 7	integer	
hcPeNum28d	Pulmonary embolus: number through day 28	integer	
hcAcsNum	Abdominal compartment syndrome: number during hospitalization	integer	
hcAcsFirstDay	Abdominal compartment syndrome: day of first	integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
hcAcsNum7d	Abdominal compartment syndrome: number through day 7	integer	
hcAcsNum28d	Abdominal compartment syndrome: number through day 28	integer	
hcEcsNum	Extremity compartment syndrome: number during hospitalization	integer	
hcEcsFirstDay	Extremity compartment syndrome: day of first	integer	
hcEcsNum7d	Extremity compartment syndrome: number through day 7	integer	
hcEcsNum28d	Extremity compartment syndrome: number through day 28	integer	
hcOthNum	Other complication: number during hospitalization	integer	
hcOthFirstDay	Other complication: day of first	integer	
hcOthNum7d	Other complication: number through day 7	integer	
hcOthNum28d	Other complication: number through day 28	integer	
<i>Discharge and disposition:</i>			
hdisp	Hospital discharge status	0=Death in hospital; 1=Inpatient rehab facility; 2=SNF; 3=Nursing home; 4=Home with services; 5=Home or Against medical advice (AMA); 6=Another acute care facility; 9=Discharged alive, other;	
hdthlc	Place of death	1=Operating room; 2=ICU; 3=Intermediate Care Unit; 4=Regular ward/telemetry; 5=Other	
hpdthc	Primary cause of death	1=Hypovolemic shock; 2=Hypoxia; 3=Cardiac dysfunction; 4=TBI; 5=Anoxic brain injury; 6=Pulmonary embolism; 7=Sepsis; 8=Multiple organ failure; 9=Other; 10=Unknown	
hsdthc	Secondary cause of death	1=Hypovolemic shock; 2=Hypoxia; 3=Cardiac dysfunction; 4=TBI; 5=Anoxic brain injury; 6=Pulmonary embolism; 7=Sepsis; 8=Multiple organ failure; 9=Other (specify); 10=Unknown	
hosplos	Elapsed days from hospital Admit to Hospital Discharge/Death/Transfer	numeric	
icuday	Number of days in the ICU	integer	

cases (n=2,220)			
Name	Label/Description	Format	Notes
Care withdrawn:			
carewd	Was care withdrawn prior to death?	0=No; 1=Yes	
wdcns	Care withdrawn because of CNS issues (e.g. brain death)	0=No; 1=Yes	
wdorgn	Care withdrawn because of organ failure	0=No; 1=Yes	
wdothr	Care withdrawn for other reason	0=No; 1=Yes	
Adverse events:			
hadvev	Were any adverse events uncovered during the hospitalization?	0=No; 1=Yes	Include

MOD Score

<u>Organ System</u>	0	1	Score 2	3	4
Respiratory: PaO ₂ /FiO ₂	>300	226–300	151–225	76–150	≤75
Renal: creatinine (μmol/l)	≤100	101–200	201–350	351–500	>500
Hepatic: bilirubin (μmol/l)	≤20	21–60	61–120	121–240	>240
Cardiovascular: PAR	≤10.0	10.1–15	15.1–20.0	20.1–30.0	>30.0
Hematologic: platelet count	>120	81–120	51–80	21–50	≤20
Neurologic: Glasgow Coma Scale	15	13–14	10–12	7–9	≤6

Notes:

- PAR = HR x CVP/MAP (if CVP is the only missing component, a value of 10.0 is used for CVP)

Procedures

Dataset includes one record per case-procedure (i.e. cases may have more than one record here). Cases without procedures recorded are not included in the dataset.

hospproc (n = 2,194)			
Name	Label/Description	Format	Notes
hsid	unique identifier	interger	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
procDay	Day number relative to episode date of the procedure	integer	
procCode	Procedure code	1=Tracheotomy; 2=Laparotomy; 3=Laparotomy with enteric injury; 4=Thoracotomy/stenotomy/VATS; 5=Percutaneous drainage of empyema, abscess; 6=Peripheral vascular; 7=Open fixation of fracture; 8=Craniotomy; 9=Neck exploration; 10=Angiographic control of hemorrhage	

Infections

Dataset includes one record per case-infection (i.e. cases may have more than one record here). Cases without infections recorded are not included in the dataset.

hospinfect (n = 1,018)			
Name	Label/Description	Format	Notes
hsid	unique identifier	interger	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
infectDay	Day number relative to episode date of the infection	integer	
infectCode	Location of infection	1=Pneumonia; 2=Bloodstream infection; 3=UTI; 4=Meningitis; 5=Cholecystitis 6=Empyema; 7=Pseudomembranous colitis; 8=Line infection; 9=Wound infection; 10=Intra-abdominal abscess; 11=Osteomyelitis	

Non-infectious Complications

Dataset includes one record per case-complication (i.e. cases may have more than one record here). Cases without complications recorded are not included in the dataset.

hospcomp (n = 314)			
Name	Label/Description	Format	Notes
hsid	unique identifier	interger	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
compDay	Day number relative to episode of non-infectious complication	integer	
compCode	Complication code	1=Fat embolism syndrome; 2=Cardiac arrest; 3=Myocardial infarction; 4=Cerebral infarction; 5=Deep venous thrombosis (DVT); 6=Pulmonary embolus; 7=Abdominal compartment syndrome; 8=Extremity compartment syndrome; 9=Other	

Electrolytes

Sodium data are collected on both the *Resuscitation/Injury Characteristics* and *Neurological Function/Management of TBI*⁵ forms. In some instances the same measure is listed on both sources. That duplication has been removed in this dataset. Note there are some instances of multiple measures at the same time that are not duplicates. If the source is the *Neurological Function/Management of TBI* form and the measurement values are the same, the value is only included in the dataset once. If the values differ, they are both included. Multiple measures at the same time on the *Resuscitation/Injury Characteristics* form are retained regardless of whether the measurement value is the same.

Note that at the beginning of the study only “maximum in range” sodium data were collected so earlier cases do not have individual electrolyte measurements.

elec (n = 11,908)			
Name	Label/Description	Format	Include/Exclude/Replace – Reason
hsid	unique identifier	interger	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
tmelec	Hours from first ED admit to electrolyte recording	Numeric	
Na	Sodium (Na) (mmol/L)	Integer	
Nand	Indication of whether the measure was not available or not recorded	0=Not selected; 1=Selected	
Cl	Chloride (Cl) (mmol/L)	Integer	
Clnd	Indication of whether the measure was not available or not recorded	0=Unselected; 1=Selected	
Kp	Potassium (K+) (mmol/L)	Numeric	
Kpnd	Indication of whether the measure was not available or not recorded	0=Unselected; 1=Selected	

⁵ Sodium data collection on the Neurological form began with version 1.01.

elec (n = 11,908)			
Name	Label/Description	Format	Include/Exclude/Replace – Reason
Nasrc	Source of the sodium measurement	0=Both forms; 1=Resus form;2=Neuro form	

Cardiovascular Failure, Ventilation, and Other Organ Failure

Only discharge and readmittance information were noted on days zero (date of injury) and day one in the ICU. Other data were collected starting on day 2 (or starting with the day they were first admitted to the ICU if this was after day 2), and providing the ICU data every other day. Cases with an ICU stay have 29 records in this table for days 0 (episode day) through 28. Each case has 29 records regardless of how many days they spent in the ICU. There are 4 cases with an ICU stay that do not have any records in this dataset.

cardventof (n = 48,082)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
day	Day number in ICU	Integer	
hr	Heart rate (beats per minute)	Integer	
map	Mean arterial blood pressure	Integer	
cvp	Central venous pressure	Integer	
cvpnd	CVP not detectable or not recorded	0=Unselected; 1=Selected	
presor	Received any pressors?	0=No; 1=Yes	
disch	Patient discharged	0=Unselected; 1=Selected	
readm	Patient readmitted	0=Unselected; 1=Selected	
ventil	Ventilated?	0=No; 1=Yes	
pao2	PaO ₂ (mmHg)	Integer	
fio2	% FiO ₂	Numeric	
peep	PEEP: Positive End Expiratory Pressure (cmH ₂ O)	Numeric	
infiltr	CXR: bilateral infiltrates?	0=No; 1=Yes	
ali	ALI: Acute lung injury	0=No; 1=Yes	
ards	ARDS: Acute respiratory distress syndrome	0=No; 1=Yes	
vt	Tidal volume (mL/kg of predicted body weight)		
extb	Extubated	0=Unselected; 1=Selected	
reintb	Re-intubated	0=Unselected; 1=Selected	
pltval	Platelets (x10 ³ /uL)	Numeric	
pltnd	Platelets NA/NR	0=Not selected; 1=Selected	
bilval	Bilirubin (umol/L)	Numeric	
bilnd	Bilirubin NA/NR	0=Not selected; 1=Selected	
creval	Creatinine (umol/L)	Numeric	
crend	Creatinine NA/NR	0=Not selected; 1=Selected	

cardventof (n = 48,082)			
Name	Label/Description	Format	Notes
gcse	GCS: eye component	Integer	
gcsv	GCS: verbal component	Integer	
gcm	GCS: motor component	Integer	

Adverse Events

Includes one record for each adjudicated adverse event. Note that a case may have multiple records.

adverseEvents (n = 381)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
advse1	Category of adverse event	1=Serious adverse event; 2=Other adverse event; 3=Other unusual circumstance	
event1	Specific type of adverse event	1=Evidence of increased intracranial hemorrhage on head CT; 2=Other AE	
life1	SAE: Life threatening?	0=No; 1=Yes; 2=Maybe/possibly; 3=Not stated	
rtitv1	SAE: Related to intervention?	0=No; 1=Yes; 2=Maybe/possibly; 3=Not stated	
expt1	SAE: Expected?	0=No; 1=Yes; 2=Maybe/possibly; 3=Not stated	

Treatment of Intracranial Hypertension

Collection of sodium monitoring for treatments was added in version 1.01.00.

trtih (n = 794)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
trtno	Treatment number	integer	
ssmbday	Day number relative to episode of treatment start	integer	
ssmtx	Treatment	1=3% Sodium; 2=Mannitol; 3=Other	

TBI Outcome Interviews

This dataset includes a record for each TBI outcome interview

tbiout (n = 2,325)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
tbitype	TBI outcome interview period	1=Discharge; 2=1 month; 3=6 month	
disctointer	Elapsed time from hospital discharge to TBI Outcome interview	Numeric	
pstinj	Interval post injury - Elapsed time from injury to TBI Outcome interview	Integer	
rspndt	Respondent	1=Patient alone; 2=Caregiver alone 3=Patient & caregiver	
cargvr	Caregiver	1=Relative or Friend; 3=Professional (RN, employed caregiver)	
reswrđ	Able to obey simple commands or say any words?	0=No; 1=Yes	
opneye	Patient open eyes?	3=Spontaneously; 2=To speech; 1=To pain; 0=None	
speech	Communication ability	4=Oriented; 3=Confused but conversant 2=Inappropriate words; 1=Incomprehensible; 0=None	
motor	Best motor response?	5=Obeys commands;4=Localizes to pain 3=Withdraws from pain; 2=Flexor posturing; 1=Extensor posturing; 0=None	
astdly	Assistance of another person at home essential every day?	0=No; 1=Yes	
astfrq	Require frequent help or someone to be around the home most of the time?	0=No; 1=Yes	
astpre	Assistance at home required before the injury?	0=No; 1=Yes	
cgfeed	Cognitive ability to feed him/herself	3=Complete; 2=Partial; 1=Minimal; 0=None	
cgbath	Cognitive ability to use the toilet	3=Complete; 2=Partial; 1=Minimal; 0=None	
cgdres	Cognitive ability to groom and dress	3=Complete; 2=Partial; 1=Minimal; 0=None	

tbout (n = 2,325)			
Name	Label/Description	Format	Notes
indpnd	Current level of functioning	5=Completely independent; 4=Independent in special environment; 3=Mildly dependent; 2=Moderately dependent; 1=Markedly dependent; 0=Totally dependent	
shpind	Shop w/o assistance?	0=No; 1=Yes	
shppre	Shop w/o assistance prior to injury?	0=No; 1=Yes	
trvind	Travel locally w/o assistance?	0=No; 1=Yes	
trvpre	Travel locally w/o assistance prior to injury?	0=No; 1=Yes	
workng	Working at previous capacity?	0=No;1=Yes	
wkrst	How restricted in work capacity?	2=Reduced work capacity; 1=Able to work only in sheltered workshop or non-competitive job; 0=Unable to work at all	
wrkdre	Work status prior to injury	4=working full-time; 3=working part-time; 2=Seeking employment; 1=Student; 0=Unable to work	
resact	Able to resume regular social and leisure activities outside the home?	0=No; 1=Yes	
rstact	Extent of restriction on social and leisure activity	1=Participate a bit less;2=Participate much less; 3=Unable to participate	
actpre	Engaged in regular social and leisure activities outside the home prior to injury?	0=No; 1=Yes	
psydis	Psychological problems which resulted in ongoing disruption to family or friendships?	0=No; 1=Yes	
amtdis	Extent of family/friendship disruption	1=Occasional; 2=Frequent; 3=Constant	
psypre	Problems with family/friends prior to the injury?	0=No; 1=Yes	
othprb	Other current problems related to the injury?	0=No; 1=Yes	
prbpre	Were similar problems present before the injury?	0=No; 1=Yes	
ocimp	What do you feel has had the greatest impact on outcome following the injury?	1=Effects of the head injury; 2=Effects of the injury to another part of the body; 3=Combination of these	
hrswpt	Hours spent with patient per day	Numeric	

tbiout (n = 2,325)			
Name	Label/Description	Format	Notes
gose5	GOSE >= 5	0=No; 1=Yes	
gose	Glasgow Outcome Scale Extended	Integer	
drs	Disability Rating Scale	Integer	

TBI 6-month GOSE and DRS Imputation

This dataset includes actual and imputed 6-month GOSE and DRS scores for the TBI population.

tbigosedrsimp (n = 1,282)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
gose6m	GOSE (6 months)	integer	
gose6m5	Dichotomous GOSE (6 months) >= 5	0=No; 1=Yes	
drs6m	DRS (6-months)	Integer	
gose6mimp	6-month GOSE imputed?	0=No; 1=Yes	
gose6m5imp	Dichotomous 6-month GOSE imputed?	0=No; 1=Yes	
drs6mimp	6-month DRS imputed?	0=No; 1=Yes	
gose6mcalcn (n, 1-20)	Calculated 6-month GOSE: replicate <i>n</i>	Integer	
gose6m5calcn (n, 1-20)	Calculated dichotomous 6-month GOSE (>= 5): replicate <i>n</i>	0=No; 1=Yes	
drs6mcalcn (n, 1-20)	Calculated 6-month DRS: replicate <i>n</i>	integer	

Manuscript data ** note that these data may be cleaner than what is found in the raw data

This dataset includes the analysis populations for the shock and TBI primary papers. Use “ms_shock eq 1” (or ms_tbi eq 0) to get the shock population and ms_tbi eq 1 (or ms_shock eq 0) to get the TBI population. Note that there is no overlap – shock/TBI cases were analyzed in the shock paper. One patient, a pregnant woman from the shock cohort analysis population, is not in this dataset.

ms (n = 2,133)			
Name	Label/Description	Format	Notes
hsid	unique identifier	integer	Range 1-2222. ROC maintains a mapping from this ID to the HS study ID.
pdisp	Pre-hospital disposition	0=Died at scene; 1=Died en route 2=Admitted to ED	

ms (n = 2,133)			
Name	Label/Description	Format	Notes
randGrp	Randomization Group	0=HSD; 1=HS; 2=NS	
ms_gose6m	6-month GOSE (no imputations)	Integer	
ms_diedInFld	Died in field or en route	0=No;1=Yes	
ms_diedInFldOrEd	Died in field, en route, or in ED	0=No;1=Yes	
ms_diedInFldOrEdOrHspLe6h	Died in field, en route, in ED, or within 6 hours	0=No;1=Yes	
ms_surv28d	28-day survival	0=No;1=Yes	
ms_surv6h	6-hour survival	0=No;1=Yes	
ms_surv24h	24-hour survival	0=No;1=Yes	
ms_dischargedAlive	Discharged alive?	0=No;1=Yes	
ms_headct1	Marshall score for first head CT	1=Diffuse Injury I; 2=Diffuse Injury II 3=Diffuse Injury III; 4=Diffuse Injury IV 5=Mass Lesion; 6=Other	
ms_maxNa0to4	Maximum serum sodium (mEq/L) in 0-4 hours	integer	
ms_maxNa4to12	Maximum serum sodium (mEq/L) in 4-12 hours	integer	
ms_maxNa12to24	Maximum serum sodium (mEq/L) in 12-24 hours	integer	
ms_oaicu	Days alive out of ICU through day 28	integer	
ms_oohosp	Days alive out of hospital through day 28	integer	
ms_offvent	Ventilator-free days to day 28	integer	
ms_ardsFreeSurv	ARDS-free survival to day 28	0=No;1=Yes	
ms_modScoreMeth2	Worst MOD score to day 28	integer	
ms_saeHypnat	Hypernatremia (Na > 160 mEq/L) requiring intervention?	0=No;1=Yes	
ms_saeIchemr	Increased intracranial hemorrhage on serial head CT? (TBI method)	0=No;1=Yes	
ms_icpmonitor	Had ICP monitoring?	0=No;1=Yes	
ms_openicp	Opening ICP (mmHg)	integer	
ms_initcpp	Initial CPP (mmHg)	integer	
ms_hiicp12h	Highest ICP in the first 12 hours	integer	

ms (n = 2,133)			
Name	Label/Description	Format	Notes
ms_hrsicpover25_12h	Number of hours in the first 12 hours with ICP > 25	integer	
ms_hrscppunder60_12h	Number of hours in the first 12 hours with CPP < 60	integer	
ms_totmann12h	Total mannitol (gm/kg) in the first 12 hours	numeric	
ms_shock	In the shock analysis population?	0=No;1=Yes	
ms_tbi	In the the TBI analysis population?	0=No;1=Yes	
ms_age	Calculated age	integer	
ms_male	Male gender?	0=No;1=Yes	
ms_blnt	Blunt or blunt/penetrating injury	0=No;1=Yes	
ms_pen	Penetrating only injury	0=No;1=Yes	
ms_qsbp	Qualifying SBP (mmHg)	integer	
ms_qhr	Qualifying HR (beats/min) if SBP between 71-90	integer	
ms_pgcs	Pre-hospital GCS	integer	
ms_iss	Injury severity score (ISS)	integer	
ms_maxHead	Maximum head AIS severity (TBI)	integer	
ms_maxHeadNeck	Maximum AIS severity for head/neck injuries (shock)	integer	
ms_maxChest	Maximum AIS severity for chest injuries	integer	
ms_maxAbdomen	Maximum AIS severity for abdominal injuries	integer	
ms_maxExtremity	Maximum AIS severity for injuries to the extremities	integer	
ms_niss	New Injury Severity Score (NISS)	integer	
ms_rts	Revised Trauma Score (RTS)	numeric	
ms_triss	Trauma Injury Severity Score (TRISS)	numeric	
ms_maxHead1	Maximum head AIS severity is 1?	0=No;1=Yes	
ms_maxHead2	Maximum head AIS severity is 2?	0=No;1=Yes	
ms_maxHead3	Maximum head AIS severity is 3?	0=No;1=Yes	
ms_maxHead4	Maximum head AIS severity is 4?	0=No;1=Yes	
ms_maxHead5	Maximum head AIS severity is 5?	0=No;1=Yes	
ms_maxHead6	Maximum head AIS severity is 6?	0=No;1=Yes	

ms (n = 2,133)			
Name	Label/Description	Format	Notes
ms_head9	Has NFS head injury?	0=No;1=Yes	
ms_air_success	Successful placement of advanced airway?	0=No;1=Yes	
ms_timeToFluid	Time from 911 call to fluid administration (minutes)	numeric	
ms_air	Air transport?	0=No;1=Yes	
ms_prehospTime	Total pre-hospital time (911 call to ED admit) in minutes	numeric	
ms_prehospFluids	Pre-hospital fluids (L)	numeric	
ms_admSbp	Admission SBP (mmHg)	integer	
ms_admNa	Admission serum sodium (mEq/L)	integer	
ms_admHgb	Admission hemoglobin (g/dL)	numeric	
ms_admInr	Admission INR	numeric	
ms_admGcs	Admission GCS	integer	
ms_prbc	PRBC units in first 24 hours since 911 call	numeric	
ms_prbc0	In 0 PRBC group?	0=No;1=Yes	
ms_prbc1to9	In 1-9 unit PRBC group?	0=No;1=Yes	
ms_prbc10plus	In 10+ unit PRBC group?	0=No;1=Yes	
ms_prbccat	PRBC category (1 => 0 units, 2 => 1-9 units, 3 => 10+ units)	1=0 units; 2=1-9 units; 3=10+ units	
ms_infect	Nosocomial infection through discharge/day 28 (TBI method)?	0=No;1=Yes	
ms_pneu	Pneumonia through discharge/day 28 (TBI method)?	0=No;1=Yes	
ms_bsi	Blood stream infection through discharge/day 28 (TBI method)?	0=No;1=Yes	
ms_uti	Urinary tract infection through discharge/day 28 (TBI method)?	0=No;1=Yes	
ms_wi	Wound infection through discharge/day 28 (TBI method)?	0=No;1=Yes	
ms_infect2	Nosocomial infection through discharge (Shock method)?	0=No;1=Yes	
ms_pneu2	Pneumonia through discharge (Shock method)?	0=No;1=Yes	
ms_bsi2	Blood stream infection through discharge (Shock method)?	0=No;1=Yes	

ms (n = 2,133)			
Name	Label/Description	Format	Notes
ms_uti2	Urinary tract infection through discharge (Shock method)?	0=No;1=Yes	
ms_wi2	Wound infection through discharge (Shock method)?	0=No;1=Yes	
ms_fluid24	Total fluids first 24 hours since 911 call (L)	numeric	
ms_over145_0to4	Serum sodium > 145 mEq/L in 0-4 hours	0=No;1=Yes	
ms_over145_4to12	Serum sodium > 145 mEq/L in 4-12 hours	0=No;1=Yes	
ms_over145_12to24	Serum sodium > 145 mEq/L in 12-24 hours	0=No;1=Yes	
ms_saeIchemr2	Increased intracranial hemorrhage on serial head CT? (shock method)	0=No;1=Yes	
ms_admSbpLe90	Admission SBP <= 90 mmHg?	0=No;1=Yes	
ms_hospAdmitted	Admitted to hospital	0=No;1=Yes	
ms_peDeath	Discharge disposition is death (post-PH population)?	0=No;1=Yes	
ms_peHome	Discharge disposition is home (post-PH population)?	0=No;1=Yes	
ms_peInpatRehab	Discharge disposition is inpatient rehabilitation (post-PH population)?	0=No;1=Yes	
ms_peSnf	Discharge disposition is skilled nursing facility (post-PH population)?	0=No;1=Yes	
ms_metacid	Metabolic acidosis (based on lactate only, base-deficit not available)	0=No;1=Yes	
ms_angioCtrl	Required emergent hemorrhage control (calculated)?	0=No;1=Yes	
ms_infect28Death	Nosocomial infection or death within 28 days?	0=No;1=Yes	
ms_seiz24h	Had a seizure within 24 hours	0=No;1=Yes	
ms_hypvent24h	Hyperventilation in the first 24 hours?	0=No;1=Yes	
ms_ventric24h	Ventriculostomy in the first 24 hours?	0=No;1=Yes	
ms_craniot24h	Craniotomy in the first 24 hours?	0=No;1=Yes	
ms_hypvent5d	Hyperventilation in the first 5 days?	0=No;1=Yes	

ms (n = 2,133)			
Name	Label/Description	Format	Notes
ms_ventric5d	Ventriculostomy in the first 5 days?	0=No;1=Yes	
ms_craniot5d	Craniotomy in the first 5 days?	0=No;1=Yes	
ms_ohf5d	Additional hypertonic fluids within first 5 days?	0=No;1=Yes	
ms_mann5d	Mannitol use within first 5 days?	0=No;1=Yes	
ms_gose6mle4	6-month GOSE <= 4 (no imputations)	0=No;1=Yes	