Subject

Age

Sex
☐ Female  ☐ Male

Patient Category: (Choose one)
☐ ED Only
☐ Hospital admit with ICU
☐ Hospital admit no ICU
☐ Rehab patient

Informed Consent

Consent Source
☐ Patient
☐ Legal surrogate
☐ Parent
☐ Guardian
☐ Other family member
☐ Enrolled under approved waiver

Timing of consent
☐ Written Informed Consent BEFORE Enrollment
☐ Written Informed Consent AFTER Enrollment

Timing of consent for pediatric patient
☐ written assent BEFORE enrollment
☐ written assent AFTER enrollment

Consented by:  Specify other consent:
☐ MD
☐ RN
☐ Research Assistant
☐ Other

Date and time written consent signed:
(mm/dd/yyyy hh:mm)

Consented for: (Choose all that apply)
☐ Data  ☐ 3mo. GOS-E
☐ Plasma  ☐ 6mo. GOS-E
☐ DNA
☐ MRI
☐ Outcome Measures
Early & Late Presentation

Date & Time of Injury

**EARLY PRESENTATION**

Method of Arrival
- Ambulance
- Helicopter
- Medical mobile team
- Walk in or drop off
- Other

Specify other method of arrival:

Hypotension in field?
- Yes
- No
- Unknown

Hypoxia in field?
- Yes
- No
- Unknown

Intubated in field?
- Yes
- No
- Unknown

Prehospital GCS

Date & Time of Prehospital GCS

Presentation
- Primary-Directly to Study Hospital
- Secondary-To First Hospital, then to Study Hospital

Date & Time of arrival to
First Hospital

Date & Time of arrival to
Study Hospital

**LATE PRESENTATION**

Date and Time of Presentation

Reason for Presentation
- Self referral with complaints
- Self referral on advice significant other
- Routine screening
- Repatriation
- Professional referral

If Professional referral, which:
- GP
- Hospital
- Other caretaker

Initial medical care directly after injury

Hospitalization:
- Yes
- No

If no: Outpatient treatment:
- None
- Emergency Room
- Doctor's Office
- Sick Bay (military)
- Other health care provider
- Infirmary (if incarcerated)
**Emergency Department**

Intubated in ED
- Yes
- No

**Arrival:**

<table>
<thead>
<tr>
<th>SBP</th>
<th>DBP</th>
<th>HR</th>
<th>RR</th>
<th>Ventilation</th>
<th>Temp. °C SpO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Assisted</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Spontaneous</td>
<td></td>
</tr>
</tbody>
</table>

**Discharge:**

<table>
<thead>
<tr>
<th>SBP</th>
<th>DBP</th>
<th>HR</th>
<th>RR</th>
<th>Ventilation</th>
<th>Temp. °C SpO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Assisted</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Spontaneous</td>
<td></td>
</tr>
</tbody>
</table>

**GCS ON ARRIVAL**

<table>
<thead>
<tr>
<th>Time of Assessment</th>
<th>Assessment Conditions</th>
<th>Pupillary Reactivity</th>
<th>Right Pupil Size</th>
<th>Left Pupil Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Admission</td>
<td>Sedated</td>
<td>Both Pupils Reactive</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Paralyzed</td>
<td>One Non-Reactive Pupil</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No Sedation or Paralysis</td>
<td>Both Pupils Non-Reactive</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GCS ON ED DISCHARGE**

<table>
<thead>
<tr>
<th>Assessment Conditions</th>
<th>Pupillary Reactivity</th>
<th>Right Pupil Size</th>
<th>Left Pupil Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedated</td>
<td>Both Pupils Reactive</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Paralyzed</td>
<td>One Non-Reactive Pupil</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>No Sedation or Paralysis</td>
<td>Both Pupils Non-Reactive</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GCS Total**

- GCS Total

---

**SCORE**

<table>
<thead>
<tr>
<th>Eyes Open</th>
<th>Best Verbal Response</th>
<th>Best Motor Response</th>
<th>GCS Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-No Response</td>
<td>1-No Response</td>
<td>1-No Response</td>
<td></td>
</tr>
<tr>
<td>2-To Pain</td>
<td>2-Incomprehensible Sounds</td>
<td>2-Extension</td>
<td></td>
</tr>
<tr>
<td>3-To Verbal Command</td>
<td>3-Inappropriate Words</td>
<td>3-Flexion Abnormal</td>
<td></td>
</tr>
<tr>
<td>4-Spontaneously</td>
<td>4-Disoriented &amp; Converses</td>
<td>4-Flexion Withdrawal</td>
<td></td>
</tr>
<tr>
<td>Untestable-Closed to Swelling</td>
<td>5-Oriented &amp; Converses</td>
<td>5-Localizes to Pain</td>
<td></td>
</tr>
<tr>
<td>Untestable-Other</td>
<td>Untestable-Tracheostomy/Endotracheal Tube</td>
<td>6-Obey Commands</td>
<td></td>
</tr>
</tbody>
</table>

---

**Emergency Department Forms**
## Labs

<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
<th>Other Specify if Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>White blood cell</td>
<td>Not Done</td>
<td>X10^6/L</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td></td>
<td>mmoL/L</td>
</tr>
<tr>
<td>Hematocrit</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Platelet</td>
<td></td>
<td>X10^9/L</td>
</tr>
<tr>
<td>Osmolality</td>
<td></td>
<td>Osm/L</td>
</tr>
<tr>
<td>INR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT</td>
<td></td>
<td>Seconds</td>
</tr>
<tr>
<td>aPTT</td>
<td></td>
<td>Seconds</td>
</tr>
<tr>
<td>Sodium</td>
<td></td>
<td>mmoL/L</td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
<td>mmoL/L</td>
</tr>
<tr>
<td>Chloride</td>
<td></td>
<td>mmoL/L</td>
</tr>
<tr>
<td>CO₂</td>
<td></td>
<td>mmoL/L</td>
</tr>
<tr>
<td>Glucose</td>
<td></td>
<td>mmoL/L</td>
</tr>
<tr>
<td>Creatinine</td>
<td></td>
<td>μmol/L</td>
</tr>
<tr>
<td>BUN</td>
<td></td>
<td>mg/dL</td>
</tr>
<tr>
<td>Lactate</td>
<td></td>
<td>mmoL/L</td>
</tr>
</tbody>
</table>

## Toxic Drug Screen

<table>
<thead>
<tr>
<th>Type of sample</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td></td>
</tr>
<tr>
<td>Urine</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Opioids</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td></td>
</tr>
<tr>
<td>Amphetamines</td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
</tr>
<tr>
<td>Barbiturates</td>
<td></td>
</tr>
<tr>
<td>PCP</td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

## Blood Alcohol Level

mg/100ml blood

## Pregnancy Test

<table>
<thead>
<tr>
<th>Type of sample</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td></td>
</tr>
<tr>
<td>Urine</td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td></td>
</tr>
</tbody>
</table>

## IV fluids

- [ ] Crystalloids
- [ ] Hypertonic saline
- [ ] Blood
- [ ] Albumin
- [ ] Vasopressors
- [ ] Mannitol
- [ ] None

## First ABG

- pH
- pCO₂
- mm Hg
- PaO₂
- mm Hg
- HCO₃
- mmol/L
- B&Be
- mmol/L
- FiO₂
- FiO₂
- Unknown

## Complicating Events

- Aspiration
  - [ ] Yes
  - [ ] No
  - [ ] Unknown
- Cardiopulmonary arrest
  - [ ] Yes
  - [ ] No
- Seizures in ED
  - [ ] Yes
  - [ ] No
- Hypertension
  - [ ] Yes
  - [ ] No
- Hypoxia
  - [ ] Yes
  - [ ] No

## Date & Time ED Discharge Destination

- [ ] Discharge home
- [ ] Transferred to other facility
- [ ] Hospital admission--Ward
- [ ] Hospital admission--Stepdown Unit
- [ ] Hospital admission--ICU
- [ ] Hospital admission--Operating room
- [ ] Expired
Cause of Injury

Injury Type  Intention
☐ Closed  ☐ Intentional
☐ Penetrating  ☐ Unintentional
☐ Blast  ☐ Undetermined

Motor vehicle traffic accidents
☐ 810 Motor vehicle vs. train
☐ 811 Motor vehicle vs. motor vehicle re-entering road
☐ 812 Motor vehicle vs. motor vehicle on the road
☐ 813 Motor vehicle vs. non-motor vehicle
☐ 814 Motor vehicle vs. pedestrian
☐ 815 Motor vehicle vs. object on the road
☐ 816 Motor vehicle loss of control on the road
☐ 819 Motor vehicle traffic accident, general
☐ 0 Driver of motor vehicle
☐ 1 Passenger in motor vehicle
☐ 2 Driver of motorcycle
☐ 3 Passenger on motorcycle
☐ 4 Occupant of streetcar
☐ 5 Rider of animal or cart
☐ 6 Pedal cyclist
☐ 7 Pedestrian
☐ 9 Unspecified person
☐ 8 Other specified person

Example: 812.0 First vehicle crashes into second vehicle and the driver of either vehicle is injured

Falls (Accidental)
☐ 884 Fall from one level to another
☐ 885 Fall on same level from slip, trip, or stumble
☐ 886 Fall on same level from contact with person
☐ 888 Fall, general

Striking against or struck by person or object (Accidental)
☐ 917.0 In sports (tackles)
☐ 917.1 Caused by crowd, collective fear or panic
☐ 917.9 Other

Cutting and piercing instruments (Accidental)
☐ 920.0 Powered lawn mower
☐ 920.1 Other powered hand tools
☐ 920.2 Powered household appliances
☐ 920.3 Knives, swords, and daggers
☐ 920.4 Cutting and piercing, general
☐ 996 Undetermined if accidental or intentional

Other accidental causes of injury
☐ 807 Railway accident
☐ 821 Motor vehicle off-road non-traffic accident
☐ 825 Motor vehicle accident, not traffic related
☐ 829 Other vehicle accident
☐ 875 Misadventure during medical care
☐ 899 Accident caused by fire
☐ 900 Environmental, excessive heat
☐ 905 Injury caused by animal
☐ 910 Accidental drowning and submersion
☐ 913 Accidental mechanical suffocation
☐ 916 Struck accidentally by falling object
☐ 918 Accidentally caught in or between objects
☐ 919 Accident caused by machinery
☐ 921 Accident caused by hot or caustic liquids or gases
☐ 925 Accident caused by electrical current
☐ 928 Other environmental or accidental causes
☐ 929 Late effects of accidental injury

Place of Injury
☐ Street/highway
☐ Home
☐ Work/school
☐ Recreational
☐ Military deployment
☐ Other
☐ Unknown

Safety
Helmet
☐ Yes  ☐ No  ☐ Not Applicable  ☐ Unknown
Airbag
☐ Yes  ☐ No  ☐ Not Applicable  ☐ Unknown
Seatbelt
☐ Yes  ☐ No  ☐ Not Applicable  ☐ Unknown
LOC PTA

Time of assessment
- ED Discharge
- ICU Discharge
- Hospital Discharge

LOC Lucid Interval
- No
- Yes

LOC Loss Of Consciousness
- No
- Yes
- Unknown

LOC Duration
- None
- <1 minute
- 1-29 minutes
- 30-59 minutes
- 1-24 hours
- >24 hours
- >7 days
- Unknown

PTA (Post Traumatic Amnesia)
- No
- Yes
- Suspected
- Unknown

PTA Duration
- None
- <1 minute
- 1-29 minutes
- 30-59 minutes
- 1-24 hours
- >24 hours
- >7 days
- Unknown
Socioeconomic Adult

Demographics

Country Of Birth

- USA
- Mexico
- Canada

Country Of Residence

- USA
- Mexico
- Canada

Primary Language

Primary Language (Not in list)

RACE

- Indian
- South/Central American Indian
- North American Indian
- Alaskan Native/Inuit
- Alaskan Native
- Inuit
- Asian
- South Asian (Indian subcontinent)
- Far Eastern Asian
- Native Hawaiian/Pacific Islander
- Hawaiian
- Pacific Islander
- White
- North American
- South American
- European
- Middle Eastern
- White African
- Oceanian (Australian or New Zealander)
- Other

Unable to obtain information (Reason)

- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

Ethnicity

- Hispanic or Latino
- Non Hispanic or Latino
- Unknown

Handedness

- Right-handed
- Left-handed
- Both

- African American
- African
- Afro Caribbean
Socioeconomics

EDUCATION

Number of years of school completed:

Highest diploma/degree:

- None, not currently in school
- None, but currently in diploma or degree-oriented program
- Vocational training (no high school diploma or GED)
- GED
- High school diploma
- Vocational training (post-high school)
- Associate's degree
- Bachelors degree
- Masters degree
- Doctoral degree
- Unable to obtain information

Unable to obtain information (Reason) Other Reason

- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

EMPLOYMENT

Employment

- Working full time (35 hrs or more/week, at least minimum wage)
- Working 20-34 hrs/week, at least minimum wage
- Working less than 20 hrs/week, at least minimum wage
- Temporary/odd jobs (less than minimum wage)
- Special employment (sheltered workshop, supportive employment, job coach)
- Unemployed
- Other
- Not in paid workforce (including child, retired, student, homemaker, disabled pre-injury)
- Unable to obtain information

Unable to obtain information (Reason) Other Reason

- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

IF MILITARY

Branch of service

- Airforce
- Army
- Marine corps
- Navy

Military occupation

- Combat
- Non-combat

Rank

- Junior enlisted (lower than NCO)
- NCO (non-commissioned officers)
- Officer (and senior warrant officers)

* Equivalent to: 'petty officer', 'unterofficer', 'corporal', 'sergeant'

IF SCHOOL GOING/STUDENT

School Status

- Full time student (diploma/degree oriented/2 courses or more)
- Part time student (diploma/degree oriented)
- Elementary school student (0-8th grade)
- Secondary school student (9-12th grade)
- Special education
- Vocational program
- Other
- None

Unable to obtain information

- Unable to obtain information (Reason) Other Reason

- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

MARITAL STATUS

Marital Status

- Single
- Married/living together/common law
- Separated
- Divorced
- Widowed
- Other

Unable to obtain information

- Unable to obtain information (Reason) Other Reason

- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

LIVING SITUATION

Primary person living with Specify other resident

Unable to obtain information (Reason) Other Reason

- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

Deployment

- Other Deployment

- None
- Afghanistan
- Africa
- Germany
- Iraq
- Other
Socioeconomic Child

Demographics

Sex
○ Female ○ Male

Country Of Birth (not in list)
☐ USA
☐ Mexico
☐ Canada

Country Of Residence (not in list)
☐ USA
☐ Mexico
☐ Canada

Primary Language

Primary Language (Not in list)

RACE

☐ Indian

☐ South/Central American Indian
☐ North American Indian

☐ Alaskan Native/Inuit

☐ Alaskan Native
☐ Inuit

☐ Asian

☐ South Asian (Indian subcontinent)
☐ Far Eastern Asian

☐ Native Hawaiian/Pacific Islander

☐ Hawaiian
☐ Pacific Islander

☐ White

☐ North American
☐ South American
☐ European
☐ Middle Eastern
☐ White African
☐ Oceanian (Australian or New Zealander)

Unable to obtain information (Reason) Other Reason

☐ Refused
☐ Unknown by patient or family
☐ Discharged/expired before asked
☐ Other

Ethnicity

☐ Hispanic or Latino
☐ Non Hispanic or Latino
☐ Unknown

Handedness

☐ Righthanded
☐ Lefthanded
☐ Both

☐ Black

☐ African American
☐ African
☐ Afro Carribean
LIVING SITUATION

Living with
- Parents
- Other family members
- Adoptive parents
- Foster care
- Other
- Unable to obtain information

Unable to obtain information (Reason) Other Reason
- Not Allowed
- Unknown by patient or family
- Discharged/expired before asked
- Other

SCHOOL STATUS OF CHILD

School Status
- Full-time student (diploma/degree oriented/2 courses or more)
- Part-time student (diploma/degree oriented)
- Elementary school student (0-8th grade)
- Secondary school student (9-12th grade)
- Special education
- Vocational program
- Other
- None
- Unable to obtain information

School Status Other

Unable to obtain information (Reason) Other Reason
- Refused
- Unknown by patient or family
- Discharged/expired before asked
- Other

Mother’s Education

Number of years of school completed:

Highest diploma/degree:
- None, not currently in school
- None, but currently in diploma or degree-oriented program
- Vocational training (no high school diploma or GED)
- GED
- High school diploma
- Vocational training (post high school)
- Associate’s degree
- Bachelors degree
- Masters degree
- Doctoral degree
- Unable to obtain information

Unable to obtain information (Reason) Other Reason
- Not Allowed
- Unknown by patient or family
- Discharged/expired before asked
- Other

Father’s Education

Number of years of school completed:

Highest diploma/degree:
- None, not currently in school
- None, but currently in diploma or degree-oriented program
- Vocational training (no high school diploma or GED)
- GED
- High school diploma
- Vocational training (post high school)
- Associate’s degree
- Bachelors degree
- Masters degree
- Doctoral degree
- Unable to obtain information

Unable to obtain information (Reason) Other Reason
- Not Allowed
- Unknown by patient or family
- Discharged/expired before asked
- Other
### Prior Medications

<table>
<thead>
<tr>
<th>Medication Name</th>
<th>Total Daily Dose</th>
<th>Unit of Measure</th>
<th>Frequency*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Frequency select from:
- 1x per day
- 2x per day
- 3x per day
- 4x per day
- 6x per day
- Every other day
- PRN
- Other
Screening for Previous TBI

1. Have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
   □ Yes    □ No

2. Have you ever injured your head or neck in a car accident or from some other moving vehicle accident, e.g., car, truck, bicycle, van, all terrain vehicle?
   □ Yes    □ No

3. Have you ever injured your head or neck in a fall or from being hit by something? For example slipping on ice, a wet floor, the street, etc., or while walking. Falling from a curb, stairs, stair, roof, etc. Falling on a hard floor, ice, rocks, etc.
   □ Yes    □ No

4. Have you ever injured your head or neck in sports, e.g., football, soccer, skiing, blading, boarding, basketball, baseball, biking, horse back riding.
   □ Yes    □ No

5. Have you ever injured your head or neck in a fight, assault, from being hit by someone or being shaken violently?
   □ Yes    □ No

6. Have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat-related incidents.
   □ Yes    □ No

If all above are “no” then stop. If answered “yes” to any of the questions above, ask:

7. Were you knocked out or unconscious following any of the injuries you mentioned above?
   DO NOT INCLUDE LOSING CONSCIOUSNESS DUE TO DRUG OVERDOSE OR FROM BEING CHOKED (see #9, below).
   □ Yes    □ No

If answer to #7 is “Yes”, ask:

   7A. How long were you knocked out or did you lose consciousness? (If identified multiple injuries with loss of consciousness, ask for each. If not sure of the time frame, encourage them to make their best guess.)

<table>
<thead>
<tr>
<th>Injury #</th>
<th>How long were you knocked out?</th>
<th>How old were you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If more than 5, how many more?</td>
<td>Longest period of unconsciousness?</td>
<td>How many ≥ 30 mins.?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If answer to #7 is “No”, ask:

8. Were you dazed, confused or do you or have a gap in your memory from the injury(ies) you mentioned above? [RULE OUT ALCOHOL BLACKOUTS]  □ Yes    □ No

   8A. How long were you dazed or confused? (If identified multiple injuries with period of confusion, ask for each. If not sure of the time frame, encourage them to make their best guess.)

<table>
<thead>
<tr>
<th>Injury #</th>
<th>How long were you dazed and confused?</th>
<th>How old were you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If more than 5, how many more?</td>
<td>Longest period confused?</td>
<td>How many ≥ 30 mins.?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Have you ever lost consciousness from a drug overdose or being choked?

   Number of times from a drug overdose  Number of times from being choked
**LIST ALL INJURIES KNOWN AT TIME OF ED DISCHARGE**

**Injuries and Diagnoses**

<table>
<thead>
<tr>
<th>Injury/Diagnosis</th>
<th>Body Region</th>
<th>AIS</th>
<th>ICD9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Hospital Admission/Discharge

### ICU Admission

<table>
<thead>
<tr>
<th>Date &amp; Time of Admission</th>
<th>Previous Unit*</th>
<th>Weight (kg)</th>
<th>Height (cm)</th>
<th>Date &amp; Time of Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Previous Unit select from:
- ED
- OR
- CT-Angio
- Ward
- Direct Transfer from Other Hospital

### Ward or Step-Down Admission

<table>
<thead>
<tr>
<th>Date &amp; Time of Admission</th>
<th>Previous Unit**</th>
<th>Weight (kg)</th>
<th>Height (cm)</th>
<th>Date &amp; Time of Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Previous Unit select from:
- ED
- OR
- CT-Angio
- Ward
- Direct Transfer from Other Hospital
- ICU

---

**Hospital Discharge**

DNR Written Date Time  Support Withdrawn/Comfort Care  Date Time  
Discharge Status  
- Alive  
- Dead  
Death Date Time  
Principal Cause of Death  
- Head injury/initial injury  
- Head injury/secondary intracranial damage  
- Systemic trauma  
- Medical complications  
| Death Cause Other  
| Other  
Hospital Discharge Date Time  
Discharge to:  
- Other hospital  
- Rehab unit  
- Nursing home  
- SNF  
- Home  
- Other  
- Discharge to Other
# Surgeries

If more than 1 surgical procedure was performed during one surgery, please list each procedure on their own line. The same start and end date/time will indicate that the procedures were performed during the same surgery.

<table>
<thead>
<tr>
<th>Operation name</th>
<th>Date</th>
<th>Surgery Start Time</th>
<th>Surgery End Time</th>
<th>Surgery Timing</th>
<th>Hypotension</th>
<th># times SBP &lt; 90 mm Hg</th>
<th>Hypoxia</th>
<th># times SpO2 &lt; 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ICP MONITOR: □ Yes □ No

<table>
<thead>
<tr>
<th>Date/Time inserted:</th>
<th>Date/Time removed:</th>
<th>Unit: □ ED □ OR □ ICU</th>
<th>Location: □ Right □ Left</th>
<th>Device used: □ Ventriculostomy □ Subdural □ Intraparenchymal □ Epidural □ Other, ___________</th>
<th>Reason for stopping: □ Monitor/catheter failure □ Patient considered unsalvageable □ Patient died □ Clinically no longer required</th>
</tr>
</thead>
</table>

BRAIN TISSUE OXYGEN PROBES (LICOX): □ Yes □ No

Date/Time catheter inserted: _____________________ Date/Time catheter removed: _____________________

Unit: □ ED □ OR □ ICU Location: □ Right □ Left

Reason for stopping:
□ Monitor/catheter failure □ Patient considered unsalvageable □ Patient died □ Clinically no longer required

JUGULAR VENOUS SATURATION □ Yes □ No

Date/Time catheter inserted: _____________________ Date/Time catheter removed: _____________________

Unit: □ ED □ OR □ ICU Location: □ Right □ Left

Reason for stopping:
□ Monitor/catheter failure □ Patient considered unsalvageable □ Patient died □ Clinically no longer required

CEREBRAL BLOOD FLOW PROBE □ Yes □ No

Date/Time catheter inserted: _____________________ Date/Time catheter removed: _____________________

Unit: □ ED □ OR □ ICU Location: □ Right □ Left

Reason for stopping:
□ Monitor/catheter failure □ Patient considered unsalvageable □ Patient died □ Clinically no longer required
Complications

**NEUROLOGICAL**

- □ Rhinorrhea
- □ Otorrhea
- □ Meningitis
- □ Seizure
- □ Ventriculitis
- □ Stroke
- □ Neurogenic Shock
- □ Other CSF Leak
- □ Other

**CARDIOVASCULAR**

- □ Cardiac Arrest
- □ CHF
- □ DVT
- □ Major Arrhythmia
- □ MI
- □ Hypertension Requiring Treatment
- □ Hypotension Requiring Treatment
- □ Hemorrhagic Shock
- □ Other
- □ Other

**PULMONARY**

- □ ARDS
- □ Fat Embolus
- □ PE
- □ Pleural Effusions
- □ Pneumonia
- □ Presumed Pneumonia
- □ Respiratory Failure
- □ VAP
- □ Asthma
- □ Other
- □ Other

**GI/ABDOMEN**

- □ Abdominal Compartment Syndrome
- □ Bowel Obstruction
- □ GI Bleed
- □ Hepatic Encephalopathy
- □ Hepatic Failure
- □ Pancreatitis
- □ Renal Failure
- □ Other
- □ Other

**WOUND**

- □ Abscess
- □ Seroma/hematoma/bleeding
- □ Wound Dehisence
- □ Wound Infection
- □ Pressure Ulcer
- □ Other
- □ Other

**LAB ABNORMALITIES**

- □ Hypoglycemia
- □ Hyperglycemia
- □ Hyponatremia
- □ Hypernatremia
- □ PT/PTT/INR Abnormality
- □ Other
- □ Other

**INFECTION OTHER THAN PNEUMONIA/WOUND**

- □ Bacteremia
- □ Fever (Temp>38.5) of unknown origin
- □ Presumed Infection
- □ Sepsis
- □ Septicemia
- □ UTI
- □ Septic Shock
- □ Other
- □ Other

**HEMATOPOIETIC**

- □ Coagulopathy
- □ DIC
- □ Anemia Requiring Treatment
- □ Other
- □ Other

**OTHER COMPLICATIONS**

- □ MSOC
- □ Transfusion Reaction
Concomitant Medications

When picking a medication name, type the first letters of either the generic name or the trade name, and choose the appropriate medication from the drop down list. The generic name will be displayed.

<table>
<thead>
<tr>
<th>Date Administered</th>
<th>Generic/Trade Name</th>
<th>Total Daily Dose</th>
<th>Dose Unit</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Routes**

- iv  intravenous
- ih  inhaled
- im  intramuscular
- pr  rectal
- pv  vaginal
- po  oral
- sc  subcutaneous
- to  topical
**BLOOD CHEMISTRY**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Not done</th>
<th>Results</th>
<th>Units</th>
<th>Other units</th>
<th>Specify if Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td></td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urea</td>
<td></td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creatinine</td>
<td></td>
<td></td>
<td>μmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amylase</td>
<td></td>
<td></td>
<td>U/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASAT/SGOT</td>
<td></td>
<td></td>
<td>U/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALAT/SGPT</td>
<td></td>
<td></td>
<td>U/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDH</td>
<td></td>
<td></td>
<td>U/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkaline Phosphatase</td>
<td></td>
<td></td>
<td>U/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Bilirubin</td>
<td></td>
<td></td>
<td>μmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium mmol/L</td>
<td></td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium</td>
<td></td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HAEMATOLOGY**

<table>
<thead>
<tr>
<th>Parameter</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin</td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hematocrit</td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White blood cell</td>
<td></td>
<td>X10⁵/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White blood cell differential count:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutrophils</td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lymphocytes</td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eosinophils</td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platelet</td>
<td></td>
<td>X10⁹/L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROTHROMBIN TIME (PT)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>INR</td>
<td></td>
<td></td>
<td>sec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARTIAL THROMBOPLASTIN TIME, ACTIVATED (APTT)</td>
<td></td>
<td></td>
<td>sec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fibrinogen</td>
<td></td>
<td>Mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-dimers</td>
<td></td>
<td>μg/ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDP</td>
<td></td>
<td>μg/ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PaO2</td>
<td></td>
<td>mm Hg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PaCO2</td>
<td></td>
<td>mm Hg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE/BD</td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCO3</td>
<td></td>
<td>mmol/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date &amp; Time of Culture</td>
<td>Source</td>
<td>Other Source</td>
<td>Growth</td>
<td>Organism</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>--------</td>
<td>-------------</td>
<td>--------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Growth Key**
- **Yes**
- **No**

**Source Key**
- Blood
- Bronchial lavage
- Catheter tip
- CSF
- Gastric aspirate
- Nasal
- Sputum
- Stool
- Throat
- Urine
- Wound
### Vital Signs

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>SBP</th>
<th>DBP</th>
<th>HR</th>
<th>ICP</th>
<th>RR</th>
<th>Temp</th>
<th>PbrO2</th>
<th>CBF</th>
<th>SpO2</th>
<th>SjVo2</th>
<th>Eye</th>
<th>Motor</th>
<th>Verbal</th>
<th>GCS Total</th>
<th>R Pupil</th>
<th>L pupil</th>
<th>React</th>
<th>Size</th>
<th>React</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1-No Response</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1-No Response</td>
<td>2-Extension</td>
<td>3-Incomprehensible Sounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2-No Response</td>
<td>3-Inappropriate Words</td>
<td>3-Inappropriate Words</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3-No Response</td>
<td>4-Disoriented &amp; Converses</td>
<td>4-Disoriented &amp; Converses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4-No Response</td>
<td>5-Oriented &amp; Converses</td>
<td>5-Oriented &amp; Converses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5-No Response</td>
<td>6-Untestable-Tracheostomy/ETT</td>
<td>6-Untestable-Tracheostomy/ETT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6-No Response</td>
<td>7-Untestable-Other</td>
<td>7-Untestable-Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Eyes**  
1-No Response  
2-To Pain  
3-To Verbal Command  
4-Spontaneously  
5-Localizes to Pain  
6-Obeys Commands  
7-Untestable-Closed to swelling  
8-Untestable-Deep sedation/paralysis  
9-Untestable-Tracheostomy/ETT  
10-Untestable-Other

**Motor**  
1-No Response  
2-Extension  
3-Flexion Abnormal  
4-Flexion Withdrawal  
5-Localizes to Pain  
6-Obeys Commands  
7-Untestable-Closed to swelling  
8-Untestable-Deep sedation/paralysis  
9-Untestable-Tracheostomy/ETT  
10-Untestable-Other

**Verbal**  
1-No Response  
2-Extension  
3-Flexion Abnormal  
4-Flexion Withdrawal  
5-Localizes to Pain  
6-Obeys Commands  
7-Untestable-Closed to swelling  
8-Untestable-Deep sedation/paralysis  
9-Untestable-Tracheostomy/ETT  
10-Untestable-Other

---

**STUDY ID:** SF __ __ __ __  

**GO Grant:** Transforming Traumatic Brain Injury Research and Clinical Care  
**Site:** UCSF  
**CHR#10-00011**
### Vital Signs

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>SBP</th>
<th>DBP</th>
<th>HR</th>
<th>ICP</th>
<th>RR</th>
<th>Temp</th>
<th>PbrO2</th>
<th>CBF</th>
<th>SpO2</th>
<th>SjVo2</th>
<th>Eye</th>
<th>Motor</th>
<th>Verbal</th>
<th>GCS Total</th>
<th>R Pupil</th>
<th>L Pupil</th>
<th>React</th>
<th>Size</th>
<th>React</th>
<th>Size</th>
</tr>
</thead>
</table>

- **Eyes**
  - 1: No Response
  - 2: To Pain
  - 3: To Verbal Command
  - 4: Spontaneously
  - Unstable-Closed to swelling
  - Unstable-Other

- **Motor**
  - 1: No Response
  - 2: Extension
  - 3: Flexion Abnormal
  - 4: Flexion Withdrawal
  - 5: Localizes to Pain
  - 6: Obeys Commands
  - Unstable-Deep sedation/paralysis
  - Unstable-Other

- **Verbal**
  - 1: No Response
  - 2: Incomprehensible Sounds
  - 3: Inappropriate Words
  - 4: Disoriented & Converses
  - 5: Oriented & Converses
  - Unstable-Tracheostomy/ETT
  - Unstable-Other

*STUDY ID: SF __ __ __ __*
## Vital Signs

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>SBP</th>
<th>DBP</th>
<th>HR</th>
<th>ICP</th>
<th>RR</th>
<th>Temp</th>
<th>PbrO2</th>
<th>CBF</th>
<th>SpO2</th>
<th>SjVo2</th>
<th>Eye</th>
<th>Motor</th>
<th>Verbal</th>
<th>GCS Total</th>
<th>R Pupil</th>
<th>L pupil</th>
<th>React</th>
<th>Size</th>
<th>React</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **Response:**
  - 1: No Response
  - 2: To Pain
  - 3: To Verbal Command
  - 4: Spontaneously
  - 5: Localizes to Pain
  - 6: Obeys Commands
  - Untestable-Closed to swelling
  - Untestable-Other

- **Motor:**
  - 1: No Response
  - 2: Extension
  - 3: Flexion Abnormal
  - 4: Flexion Withdrawal
  - 5: Oriented & Converses
  - Untestable-Deep sedation/paralysis
  - Untestable-Tracheostomy/ETT
  - Untestable-Other

- **Verbal:**
  - 1: No Response
  - 2: Incomprehensible Sounds
  - 3: Inappropriate Words
  - 4: Disoriented & Converses
  - 5: Oriented & Converses
  - Untestable-Tracheostomy/ETT
  - Untestable-Other

**GCS:**
- Eyes
- Motor
- Verbal
- Total
## Injuries and Diagnoses

<table>
<thead>
<tr>
<th>Injury/Diagnosis</th>
<th>Body Region</th>
<th>AIS</th>
<th>ICD9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Therapy Intensity Level

Position
- Head elevation for ICP control
- Nursed flat (180°) for CPP management

Sedation/metabolic suppression and neuromuscular blockade
- Sedation (low dose as required for mechanical ventilation)
- Higher dose sedation for ICP control (not aiming for burst suppression)
- Metabolic suppression for ICP control with high dose barbiturates or propofol
- Neuromuscular blockade (paralysis)

CSF Drainage
- <120 ml/day (<5 ml/hour)
- ≥120 ml (≥5 ml/hour)

Fluid loading and vasopressor therapy
- Fluid loading for maintenance of cerebral perfusion
- Vasopressor therapy required for management of cerebral perfusion

Hyperventilation
- Moderate hypocapnia for ICP control [PaCO2 ≥4 kPa (30 mmHg)]
- Intensive hypocapnia for ICP control [PaCO2 <4 kPa (30 mmHg)]

Hyperosmolar Therapy
- Hyperosmolar therapy with mannitol up to 100 g/day
- Hyperosmolar therapy with hypertonic saline up to 40 g/day
- Hyperosmolar therapy with mannitol >100 g/day
- Hyperosmolar therapy with hypertonic saline >40 g/day

Treatment of fever and hypothermia
- Treatment of fever (temp >38°C) or spontaneous temp below 34.5°C
- Mild hypothermia for ICP control with a lower limit of 35°C
- Hypothermia below 35°C

Surgery for refractory ICP (decompression/ lobectomy)
- Intracranial operation for progressive mass lesion, not scheduled on admission
- Decompressive craniectomy

<table>
<thead>
<tr>
<th>FLUIDS</th>
<th>ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid in</td>
<td></td>
</tr>
<tr>
<td>Blood and derivates</td>
<td></td>
</tr>
<tr>
<td>Fluid out</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL DOSE VASOPRESSORS</th>
<th>mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noradrenaline</td>
<td></td>
</tr>
<tr>
<td>Phenylephrine</td>
<td></td>
</tr>
<tr>
<td>Dopamine</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL DOSE HYPEROSMOLAR AGENTS</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mannitol</td>
<td></td>
</tr>
<tr>
<td>Hypertonic Saline</td>
<td></td>
</tr>
</tbody>
</table>
**GO Grant: Transforming Traumatic Brain Injury Research and Clinical Care**  
**Site: UCSF**  
**CHR#10-00011**

**STUDY ID:** SF________

**Date and Time of Assessment**

---

### 3 Month Glasgow Outcome Scale—Extended (GOS-E)

#### CONSCIOUSNESS

1. Is the head injured person able to obey simple commands, or say any words?  
   - □ No (VS)  
   - □ Yes  

   Anyone who shows ability to obey even simple commands, or utter any word or communicate specifically in any other way is no longer considered to be in the vegetative state. Eye movements are not reliable evidence of meaningful responsiveness. Corroboration with nursing staff. Confirmation of VS requires full assessment as in the Royal College of Physician Guidelines.

#### INDEPENDENCE IN THE HOME

2a. Is the assistance of another person at home essential every day for some activities of daily living?  
   - □ No  
   - □ Yes  

For a ‘No’ answer they should be able to look after themselves at home for 24 hours if necessary, though they need not actually look after themselves. Independence includes the ability to plan for and carry out the following activities: getting washed, putting on clean clothes without prompting, preparing food for themselves, dealing with callers, and handling minor domestic crises. The person should be able to carry out activities without needing prompting or reminding, and should be capable of being left alone overnight.

2b. Do they need frequent help or someone to be around at home most of the time?  
   - □ No (Lower SD)  
   - □ Yes  

   (Lower SD)  

   For a ‘No’ answer they should be able to look after themselves at home for up to 8 hours during the day if necessary, though they need not actually look after themselves.

2c. Was assistance at home essential before the injury?  
   - □ No  
   - □ Yes

#### INDEPENDENCE OUTSIDE THE HOME

3a. Are they able to shop without assistance?  
   - □ No (Upper SD)  
   - □ Yes

   This includes being able to plan what to buy, take care of money themselves, and behave appropriately in public. They need not normally shop, but must be able to do so.

3b. Were they able to shop without assistance before the injury?  
   - □ No  
   - □ Yes

4a. Are they able to travel locally without assistance?  
   - □ No (Upper SD)  
   - □ Yes

They may drive or use public transport to get around. Ability to use a taxi is sufficient, provided the person can phone for it themselves and instruct the driver.

4b. Were they able to travel without assistance before the injury?  
   - □ No  
   - □ Yes
**WORK**

5a. Are they currently able to work to their previous capacity? [ ] No [ ] Yes

If they were working before, then their current capacity for work should be at the same level. If they were seeking work before, then the injury should not have adversely affected their chances of obtaining work or the level of work for which they are eligible. If the patient was a student before injury then their capacity for study should not have been adversely affected.

5b. How restricted are they? [ ] Reduced work capacity (Upper MD)

[ ] Able to work only in a sheltered workshop or non-competitive job, or currently unable to work (Lower MD)

5c. Were they either working or seeking employment before the injury (answer 'yes') or were they doing neither (answer 'no')? [ ] No [ ] Yes

**SOCIAL & LEISURE ACTIVITIES**

6a. Are they able to resume regular social and leisure activities outside home? [ ] No [ ] Yes

They need not have resumed all their previous leisure activities, but should not be prevented by physical or mental impairment. If they have stopped the majority of activities because of loss of interest or motivation then this is also considered a disability.

6b. What is the extent of restriction on their social and leisure activities?

[ ] Participate a bit less: at least half as often as before injury (Lower GR)

[ ] Participate much less: less than half as often (Upper MD)

[ ] Unable to participate: rarely, if ever, take part (Lower MD)

6c. Did they engage in regular social and leisure activities outside home before the injury? [ ] No [ ] Yes

**FAMILY & FRIENDSHIPS**

7a. Have there been psychological problems which have resulted in ongoing family disruption or disruption to friendships? [ ] No [ ] Yes

Typical post-traumatic personality changes: quick temper, irritability, anxiety, insensitivity to others, mood swings, depression, and unreasonable or childish behavior.

7b. What has been the extent of disruption or strain?

[ ] Occasional - less than weekly (Lower GR)

[ ] Frequent - once a week or more, but tolerable (Upper MD)

[ ] Constant - daily and intolerable (Lower MD)

7c. Were there problems with family or friends before the injury? [ ] No [ ] Yes

If there were some problems before injury, but these have become markedly worse since injury then answer 'No' to Q7c.
RETURN TO NORMAL LIFE

8a. Are there any other current problems relating to the injury which affect daily life?
   1 □ No (Upper GR)  2 □ Yes
   (Lower GR)

Other typical problems reported after head injury: headaches, dizziness, tiredness, sensitivity to noise or
light, slowness, memory failures, and concentration problems.

8b. Were similar problems present before the injury?
   1 □ No  2 □ Yes

If there were some problems present before injury, but these have become markedly worse since injury then
answer 'No' to Q8b.

Epilepsy:

Since the injury has the head injured person had any epileptic fits?  □ No  □ Yes

Have they been told that they are currently at risk of developing epilepsy?
   □ No  □ Yes

What is the most important factor in outcome?
   □ Effects of head injury
   □ Effects of illness or injury to another part of the body
   □ A mixture of these

The patient’s overall rating is based on the lowest outcome category indicated on the scale. Refer to
Guidelines for further information concerning administration and scoring

1  Dead
2  Vegetative State (VS)
3  Lower Severe Disability (Lower SD)
4  Upper Severe Disability (Upper SD)
5  Lower Moderate Disability (Lower MD)
6  Upper Moderate Disability (Upper MD)
7  Lower Good Recovery (Lower GR)
8  Upper Good Recovery (Upper GR)

GOS-E SCORE:  

3 Month Followup Forms
# Neurological Assessment: symptoms and signs

<table>
<thead>
<tr>
<th>Category</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dizziness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitivity to light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitivity to noise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbness/tingling</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sleep</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drowsiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeping less than usual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeping more than usual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble falling asleep</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cognitive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling mentally foggy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling slowed down</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty concentrating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty remembering</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emotional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sadness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More emotional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervousness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do these symptoms worsen with:
- Physical activity
- Cognitive activity

**Overall rating:**

How different is the person acting compared to his/her usual self?

Normal □1 □2 □3 □4 □5 □6 Very different
**3 Month Post Discharge & Outpatient Care**  
Date/Time of assessment ___/___/___ __:__

<table>
<thead>
<tr>
<th>Patient Outcome</th>
<th>Date of Death <em><strong>/</strong></em>/___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alive</td>
<td>Dead</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cause of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head injury/initial injury</td>
</tr>
<tr>
<td>Head injury/secondary intracranial damage</td>
</tr>
<tr>
<td>Systemic trauma</td>
</tr>
<tr>
<td>Medical complications</td>
</tr>
<tr>
<td>Other Cause Of Death __________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>On date of assessment:</td>
</tr>
<tr>
<td>Home</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Return to work/school</th>
<th>Family Strain/disruption</th>
<th>Effect on marriage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Sheltered</td>
<td>Partial</td>
</tr>
<tr>
<td>None</td>
<td>Separated</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Is the patient currently involved with any legal issues resulting from the injuries incurred from the original incident?  
Yes ☐ No ☐ Don't Know ☐

Rehabilitation  
None ☐ Only as outpatient ☐ General rehab (inpt) ☐ TBI rehabilitation unit (inpt) ☐ General long-term care unit (inpt) ☐ Geriatric rehab unit (inpt)

**IF TREATED AS AN INPATIENT:**  
Admit date ___/___/___  
Discharge date ___/___/___

**SHORT TERM REHAB INTERRUPTIONS**

<table>
<thead>
<tr>
<th>Interruption 1: Start Date <em><strong>/</strong></em>/___</th>
<th>End Date <em><strong>/</strong></em>/___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason: Readmit to hospital</td>
<td>Readmit to ICU</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interruption 2: Start Date <em><strong>/</strong></em>/___</th>
<th>End Date <em><strong>/</strong></em>/___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason: Readmit to hospital</td>
<td>Readmit to ICU</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interruption 3: Start Date <em><strong>/</strong></em>/___</th>
<th>End Date <em><strong>/</strong></em>/___</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason: Readmit to hospital</td>
<td>Readmit to ICU</td>
</tr>
</tbody>
</table>

**OUTPATIENT THERAPY**

If treated as an outpatient: Start Date ___/___/___  
End Date ___/___/___

Active Rehab Ongoing: Yes ☐ No ☐

Frequency of outpatient therapy: Only follow-up; no active treatment ☐ Less than once per week ☐
Weekly ☐ 2-3 times per week ☐ Daily ☐

Type of Outpatient Therapy:

Physical therapy ☐ Occupational therapy ☐ Speech therapy ☐ Therapeutic recreation ☐ Cognitive remediation ☐
Vocational services ☐ Psychological services ☐ Nursing services ☐ Comprehensive day treatment ☐ Peer mentoring ☐
Social work/Case management ☐ Independent living training ☐ Home health ☐ Other hospital unit ☐ Other ______