

University of Maryland, Baltimore  
Institutional Review Board (IRB)  
Phone: (410) 706-5037  
Email: [hrpo@umaryland.edu](mailto:hrpo@umaryland.edu)

## EXEMPT DETERMINATION

**OF NOTE: The Principal Investigator should review the University of Maryland Baltimore criteria for performing research during the current COVID-19 pandemic emergency. Understand that IRB approval of this research does not suggest that performance of this research under current guidelines is allowed. Failure to comply with the UMB President's directives would be considered non-compliance. The UMB Research directives can be found at <https://www.umaryland.edu/coronavirus/> . If you need clarification or guidance please call the Human Research Protections Office at 410-706-5037.**

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Date: May 17, 2023

To: Mira Ghneim  
RE: HP-00105628  
Protocol Version and ID #:  
Type of Submission: Initial Review  
Type of IRB Review: Exempt

**Determination Date: 5/17/2023**

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This is to certify that University of Maryland, Baltimore (UMB) Institutional Review Board (IRB) has reviewed the above referenced protocol entitled, "Palliative Care in the Trauma ICU."

Your protocol has been determined to be exempt under 45 CFR 46.104(d) from IRB review based on the following category(ies):

Category (4): Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met:

- (i) The identifiable private information or identifiable biospecimens are publicly available; OR
- (ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects; OR
- The research involves only information collection and analysis involving the investigator's use of identifiable health information when that use is regulated under 45 CFR parts 160 and 164 (HIPAA), subparts A and E, for the purposes of "health care operations" or "research" as those terms are defined at 45 CFR 164.501 or for "public health activities and purposes" as described under 45 CFR 164.512(b); OR
- The research is conducted by, or on behalf of, a Federal department or agency using government-generated or government-collected information obtained for nonresearch activities, if the research generates identifiable private information that is or will be maintained on information technology that is subject to and in compliance with section 208(b) of the E-Government Act of 2002, 44 U.S.C. 3501 note, if all of the identifiable private information collected, used, or generated as part of the activity will be maintained in systems of records subject to the Privacy Act of 1974, 5 U.S.C. 552a, and, if applicable, the information used in the research was collected subject to the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq.

The IRB made the following determinations regarding this submission:

- A waiver of HIPAA authorization for release of the PHI identified in the CICERO application has been reviewed and approved for this research study.

In conducting this research you are required to follow the requirements listed in the INVESTIGATOR MANUAL.

Investigators are reminded that the IRB must be notified of any changes in the study.

Research activity involving veterans or the Baltimore VA Maryland Healthcare System (BVAMHCS) as a site, must also be approved by the BVAMHCS Research and Development Committee prior to initiation. Contact the VA Research Office at 410-605-7131 for assistance.

In conducting this research you are required to follow the requirements listed in the INVESTIGATOR MANUAL.

Investigators are reminded that the IRB must be notified of any changes in the study. Research activity in which the VA Maryland Healthcare System (VAMHCS) is a recruitment site or in which VA resources (i.e., space, equipment, personnel, funding, data) are otherwise involved, must also be approved by the VAMHCS Research and Development Committee prior to initiation at the VAMHCS. Contact the VA Research Office at 410-605-7000 ext. 6568 for assistance.

The UMB IRB is organized and operated according to guidelines of the International Council on Harmonization, the United States Office for Human Research Protections and the United States Code of Federal Regulations and operates under Federal Wide Assurance No. FWA00007145.

If you have any questions about this review or questions, concerns, and/or suggestions regarding the Human Research Protection Program (HRPP), please do not hesitate to contact the Human Research Protections Office (HRPO) at (410) 706-5037 or [HRPO@umaryland.edu](mailto:HRPO@umaryland.edu).

Age ≥ 89?	Patient's age at time of injury
Age (years)	Patient's age at time of injury
Gender	Male Female Non-binary Other Unknown
Race	American Indian or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Other Unknown
Ethnicity	Hispanic Non-Hispanic Unknown
Patient's primary language	English Spanish Chinese Tagalog Vietnamese Arabic French Korean Russian Portuguese Other Unknown
Religion	Buddhism Christianity (including Roman Catholic, Eastern Orthodox, Protestant) Hinduism Islam Judaism Other Unknown
Pre-injury living arrangements	Home, independent – no caregivers in home Home with assistance – caregivers in home Assisted living facility Skilled nursing facility Other Unknown
Insurance status	Medicare Medicaid Commercial insurance Uninsured Unknown
Admission Date and Time	MM-DD-YYYY HH:MM format

Discharge Date and Time	MM-DD-YYYY HH:MM format
Hospital Length of Stay	Calculated by REDCap
Discharge disposition	Home, independent Home with services – PT, OT, home nursing Subacute rehab Acute rehab Neuro rehab Spinal cord rehab Hospice – home, residential or inpatient Other
Primary admitting service	Trauma Critical care General surgery (other than trauma) Orthopedics Neurosurgery Medicine Other
ICU Length of Stay	Length of stay in days, using # of midnights
<b>Pre-Injury Medical Information</b>	
BMI	Body mass index
Comorbidities	<ul style="list-style-type: none"> <li>• Select all that apply</li> <li>• Myocardial infarction – history of MI within 6 months prior to injury</li> <li>• Congestive heart failure – The inability of the heart to pump a sufficient quantity of blood to meet the metabolic needs of the body or can do so only at an increased ventricular filling pressure.</li> <li>• Peripheral vascular disease – The narrowing or blockage of the vessels that carry blood from the heart to the legs. It is primarily caused by the buildup of fatty plaque in the arteries, which is called atherosclerosis. Peripheral Arterial Disease (PAD) can occur in any blood vessel, but it is more common in the legs than the arms.</li> <li>• Dementia – A diagnosis of dementia including Alzheimer's, Lewy Body Dementia, frontotemporal dementia (Pick's Disease), or vascular dementia must be documented in the patient's medical record.</li> <li>• COPD – Chronic obstructive pulmonary disease (COPD) is a lung disease characterized by chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible. The more familiar terms 'chronic bronchitis' and 'emphysema' are no longer used but are now included within the COPD diagnosis. Does not include asthma.</li> <li>• Connective tissue disease – A diagnosis of a connective tissue disease must be documented in the patient's medical record. Examples of connective tissue diseases include rheumatoid arthritis, systemic lupus erythematosus (lupus), Sjogren's syndrome, Ehlers-Danlos syndrome, and Marfan syndrome.</li> </ul>

	<ul style="list-style-type: none"> <li>• Peptic ulcer disease – A diagnosis of peptic ulcer disease must be documented in the patient’s medical record.</li> <li>• Liver disease - Cirrhosis is the replacement of normal liver tissue with non-living scar tissue related to other liver diseases. Must have documentation in the medical record of cirrhosis, which might also be referred to as end-stage liver disease. This excludes patients who no longer have cirrhosis after a successful liver transplant.</li> <li>• Chronic kidney disease – GFR &lt; 90, or requiring periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration</li> <li>• Solid tumor, leukemia, lymphoma – include only patients actively receiving chemotherapy, immunotherapy, or radiation treatment</li> <li>• Disseminated cancer – Cancer that has spread to one or more sites in addition to the primary site and in the presence of multiple metastases indicates the cancer is widespread, fulminant, or near terminal.</li> <li>• AIDS – The patient has a documented diagnosis of AIDS in the medical records. This excludes patients with HIV who do not have an AIDS-defining illness.</li> <li>• Depression – Major depressive disorder diagnosis is documented in the medical record.</li> <li>• Anxiety – The patient has a diagnosis of anxiety in the medical record.</li> <li>• Chronic pain – The patient has a documented diagnosis of chronic pain in the medical record.</li> <li>• Substance use disorder – The patient has a documented diagnosis of substance use disorder in the medical record.</li> </ul>
Pre-injury anticoagulant use?	Documentation of medications that interfere with blood clotting. This does not include patients receiving subcutaneous heparin or low molecular weight heparin for DVT prophylaxis alone.
Anticoagulant	Warfarin Dabigatran Rivaroxaban Apixaban Edoxaban Enoxaparin (therapeutic dosing) Other
Pre-injury antiplatelet use?	Documentation of medications that interfere with platelet function
Antiplatelet agent	Aspirin Clopidogrel Ticagrelor Prasugrel Other
<b>Injury Related Information</b>	
Mechanism of injury	GSW Stabbing Penetrating, other Fall

	<ul style="list-style-type: none"> <li>Found down</li> <li>Motor vehicle collision</li> <li>Motorcycle collision</li> <li>Pedestrian struck</li> <li>Crush injury</li> <li>Bicycle accident</li> <li>Other</li> </ul>
Fall height	Height from which patient fell
ISS	Injury severity score
AIS	Abbreviated injury score for each of the following regions: <ul style="list-style-type: none"> <li>Head</li> <li>Neck</li> <li>Face</li> <li>Thorax</li> <li>Abdomen</li> <li>Spine</li> <li>Upper extremity</li> <li>Lower extremity</li> </ul>
Arrival systolic blood pressure	First recorded systolic blood pressure within 30 minutes of hospital arrival
Arrival heart rate	First recorded heart rate within 30 minutes of hospital arrival
Arrival oxygen saturation	First recorded oxygen saturation within 30 minutes of hospital arrival
Arrival GCS – Eye	First recorded GCS eye component within 30 minutes of hospital arrival
Arrival GCS – Verbal	First recorded GCS verbal component within 30 minutes of hospital arrival
Arrival GCS – Motor	First recorded GCS motor component within 30 minutes of hospital arrival
Arrival GCS – Total	First recorded GCS total score within 30 minutes of hospital arrival
Was the patient intubated?	<ul style="list-style-type: none"> <li>Yes - pre-hospital</li> <li>Yes - trauma bay/emergency department</li> <li>Yes - during hospitalization</li> <li>No</li> </ul>
Total ventilator days	Number of days patient required mechanical ventilator support, using # of midnights
<b>Trauma Bay Evaluation</b>	
WBC	White blood cell count drawn at time of patient arrival
Hb	Hemoglobin drawn at time of patient arrival
Platelets	Platelets drawn at time of patient arrival
Creatinine	Creatinine drawn at time of patient arrival
Lactate	Lactate drawn at time of patient arrival
INR	International normalized ratio drawn at time of patient arrival
Albumin	Albumin drawn at time of patient arrival
Total bilirubin	Total bilirubin drawn at time of patient arrival
EtOH	Quantitative blood alcohol level obtained at time of patient arrival
Troponin	Troponin level obtained at time of patient arrival
Toxicology screen	Can be obtained via blood or urine. Only report drugs that were not administered at any facility or setting in treating this patient event.

Imaging	
Chest x-ray, pelvis x-ray, extremity x-rays	Select yes if patient had this study performed as a part of their initial evaluation. When reporting the results, please only include acute traumatic findings. For extremities, be sure to include which extremities are affected.
FAST performed?	Was a Focused Assessment with Sonography in Trauma performed?
CT Scans: head, cervical spine, neck, chest, abdomen/pelvis, extremities	Select yes if patient had this study performed as a part of their initial evaluation. When reporting the results, please only include acute traumatic findings. For extremities, be sure to include which extremities are affected.
<b>Advanced Directives and Palliative Care</b>	
Date & Time of Palliative Care Evaluation	Date and time of evaluation by specialty team as documented in the medical record
Primary reason for palliative care consultation	Goals of care discussion Symptom management Support for family members Hospice evaluation Other
Identified decision maker	Patient Spouse/significant other Child/children Parent(s) Sibling(s) Other relative Friend Other non-relative
Code Status on Admission	<ul style="list-style-type: none"> <li>• Full code – wants cardiopulmonary resuscitation (CPR) and intubation in the event of a cardiac arrest</li> <li>• DNR/DNI – does NOT want CPR or intubation in the event of a cardiac arrest</li> <li>• DNR, may intubate – does not want CPR, but agrees to intubation</li> <li>• May resuscitate, DNI – wants CPR, but does not agree to intubation</li> <li>• DNR-CCA - does NOT want CPR or intubation in the event of a cardiac arrest; in the event of a cardiac or respiratory arrest, the patient will be transitioned to comfort care</li> <li>• Palliative and supportive care (also called DNR-CC) – DNR, DNI, comfort focused care only</li> </ul>
Did the patient have an advanced directive or POLST present on admission?	Advance directives including durable power of attorney and living wills. POLST (also called MOLST) is Physician Orders for Life Sustaining Treatment, and describes patient's preference with regards to a variety of treatments at the end of their life. If patient has a POLST at the time of admission, please select their wishes for each of the categories.
Code status on discharge?	<ul style="list-style-type: none"> <li>• Full code – wants cardiopulmonary resuscitation (CPR) and intubation in the event of a cardiac arrest</li> <li>• DNR/DNI – does NOT want CPR or intubation in the event of a cardiac arrest</li> </ul>

	<ul style="list-style-type: none"> <li>• DNR, may intubate – does not want CPR, but agrees to intubation</li> <li>• May resuscitate, DNI – wants CPR, but does not agree to intubation</li> <li>• DNR-CCA - does NOT want CPR or intubation in the event of a cardiac arrest; in the event of a cardiac or respiratory arrest, the patient will be transitioned to comfort care</li> <li>• Palliative and supportive care (also called DNR-CC) – DNR, DNI, comfort focused care only</li> </ul>
Did the patient have an advanced directive or POLST present on discharge?	Advance directives including durable power of attorney and living wills. POLST (also called MOLST) is Physician Orders for Life Sustaining Treatment, and describes patient’s preference with regards to a variety of treatments at the end of their life. If patient has a POLST at the time of discharge, please select their wishes for each of the categories.
<b>Interventions</b>	
Initiation of renal replacement therapy	Renal replacement therapy can include continuous renal replacement therapy or intermittent renal replacement therapy. Do not include patients who required renal replacement therapy prior to their injury.
Initiation of ECMO	ECMO – extracorporeal membrane oxygenation
Intracranial monitor placement	May include any of the following: ventriculostomy, subarachnoid bolt, Camino bolt, external ventricular drain (EVD), intraparenchymal oxygen monitor (Licox, etc.), or jugular venous bulb
Central venous access placement	Do not include patients who had central venous access placed during their initial resuscitation. Central venous access includes lines placed in the femoral vein, the subclavian vein, or the internal jugular vein.
Chest tube placement	Tube thoracostomy of any size, including percutaneous. Do not include patients who had chest tube placed during their initial resuscitation.
Intubation	Do not include patients who were intubated during their initial resuscitation.
Number of ventilator days	Number of days patient required mechanical ventilator support, using # of midnights
Operative interventions	<ul style="list-style-type: none"> <li>• Head: craniectomy, craniotomy, burr holes; excludes placement of intracranial monitor</li> <li>• Face: repair of facial fractures, exploration of the eye; excludes lacerations repaired outside of the operating room</li> <li>• Neck: tracheostomy, wound exploration, vascular repair; excludes cervical spine interventions</li> <li>• Thorax, including rib cage: thoracotomy, rib plating, video assisted thoracoscopy, resuscitative thoracotomy; excludes chest tube placement outside of the operating room</li> <li>• Abdomen, including : enteral feeding access, exploratory laparotomy, bowel resection, splenectomy, colectomy, colostomy, hepatectomy, scrotal exploration</li> <li>• Spine: decompression, fusion, etc. of the cervical, thoracic, or lumbar spine; excludes placement of epidural catheters</li> <li>• Upper extremities, including shoulder: application of external fixator, repair of fractures, angiography for evaluation of vascular injuries, repair of vascular injuries</li> </ul>



	<ul style="list-style-type: none"> <li>• Lower extremities, including bony pelvis: application of external fixator, repair of fractures, angiography for evaluation of vascular injuries, repair of vascular injuries</li> <li>• External, including burns: excision of burns, debridement of devitalized tissue, skin graft, complex wound closure</li> </ul>
<b>Outcomes</b>	
<p>Hospital events (occurring after initial resuscitation)</p>	<ul style="list-style-type: none"> <li>• Unplanned intubation: Patient requires placement of an endotracheal tube and mechanical or assisted ventilation manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis.</li> <li>• Unplanned ICU admission: Patients admitted to the ICU after initial transfer to the floor, and/or patients with an unplanned return to the ICU after initial ICU discharge. Includes patients who required ICU care due to an event that occurred during surgery or in the PACU. Excludes patients with a planned post-operative ICU stay.</li> <li>• Unplanned return to operating room: Patients with an unplanned operative procedure or patients returned to the operating room after initial operative management of a related previous procedure. Exclude non-urgent tracheostomy and percutaneous endoscopic gastrostomy, pre-planned, staged and/or procedures for incidental findings or operative management related to a procedure that was initially performed prior to arrival at your center.</li> <li>• CLABSI - A laboratory-confirmed bloodstream infection (LCBI) where central line (CL) or umbilical catheter (UC) was in place for &gt; 2 calendar days on the date of event, with day of device placement being Day 1, AND The line was also in place on the date of event or the day before</li> <li>• CAUTI - A urinary tract infection (UTI) where an indwelling urinary catheter was in place for &gt; 2 calendar days on the date of event, with day of device placement being Day 1, AND An indwelling urinary catheter was in place on the date of event or the day before. If an indwelling urinary catheter was in place for more than 2 consecutive days in an inpatient location and then removed, the date of event for the UTI must be the day of device discontinuation or the next day for the UTI to be catheter-associated.</li> <li>• Surgical site infection: infection occurring within 30 or 90 days of an operation; see NTDB data dictionary for a more detailed definition; includes both deep surgical site infections and organ/space surgical site infections</li> <li>• C. difficile infection: active infection with C. difficile requiring treatment</li> <li>• Pneumonia – diagnosis based on imaging, signs/symptoms, and laboratory results; see NTDB data dictionary for detailed definition</li> <li>• Bacteremia – positive blood cultures</li> <li>• Myocardial infarction: An acute myocardial infarction (MI) must be noted with documentation of ECG changes indicative of an acute MI AND New elevation in troponin greater than three times upper</li> </ul>

	<p>level of the reference range in the setting of suspected myocardial ischemia.</p> <ul style="list-style-type: none"> <li>• Deep vein thrombosis: The formation, development, or existence of a blood clot or thrombus within the venous system, which may be coupled with inflammation.</li> <li>• Pulmonary embolism: A lodging of a blood clot in a pulmonary artery with subsequent obstruction of blood supply to the lung parenchyma. The blood clots usually originate from the deep leg veins or the pelvic venous system. Exclude subsegmental pulmonary emboli.</li> <li>• Pressure ulcer: A localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated. Equivalent to NPUAP Stages II-IV, Unstageable/Unclassified, and Suspected Deep Tissue Injury</li> <li>• Transfusion of blood products: includes whole blood, packed red blood cells, fresh frozen plasma, platelets, or cryoprecipitate</li> <li>• Severe sepsis or septic shock: Severe sepsis: sepsis plus organ dysfunction, hypotension (low blood pressure), or hypoperfusion (insufficient blood flow) to 1 or more organs. Septic shock: sepsis with persisting arterial hypotension or hypoperfusion despite adequate fluid resuscitation.</li> <li>• Bleeding: bleeding from a surgical site or other site that requires intervention; includes GI bleeds</li> </ul>
Was the patient readmitted within 30 days?	Was the patient readmitted to any hospital within 30 days of discharge? Include day of discharge as day 1.
Death secondary to discontinuation of life-sustaining measures?	Select yes if the patient expired after the decision was made by the decision maker to discontinue life-sustaining measures. Select no if the patient died while life-sustaining measures (i.e. mechanical ventilation, vasoactive agents, antibiotics, renal replacement therapy) were still ongoing.

# Demographics

Record ID

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Age  $\geq$  89?

- Yes
- No

Age (years)

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Gender

- Male
- Female
- Non-binary
- Other
- Unknown

Race

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Unknown

Ethnicity

- Hispanic
- Non-Hispanic
- Unknown

Patient's Primary Language

- English
- Spanish
- Chinese
- Tagalog
- Vietnamese
- Arabic
- French
- Korean
- Russian
- Portuguese
- Other
- Unknown

If other, what is primary language?

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Religion

- Buddhism
- Christianity
- Hinduism
- Islam
- Judaism
- Other
- Unknown

If other, what is patient's religion?

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Pre-injury Residence

- Home, independent
- Home with assistance
- Assisted living facility
- Skilled nursing facility
- Long term care facility
- Other
- Unknown

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If other, what were patient's pre-injury living arrangements?

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Insurance status

- Medicare
- Medicaid
- Commercial insurance
- Uninsured
- Unknown

# Hospitalization Information

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Admission Date & Time

\_\_\_\_\_

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Discharge Date & Time

\_\_\_\_\_

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Hospital Length of Stay

\_\_\_\_\_

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Discharge disposition

- Home independent
- Home with services
- Subacute rehab
- Acute rehab
- Neuro rehab
- Spinal cord rehab
- Hospice
- Expired
- Other

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If other, what was patient's disposition?

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Primary admitting service

- Trauma
- Critical care
- General surgery (other than trauma)
- Orthopedics
- Neurosurgery
- Medicine
- Other

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If other, what was admitting service?

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ICU Length of Stay  
(if multiple stays, provide total number of days)

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# Pre-Injury Medical Information

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BMI

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Comorbidities (check all that apply):

- MI
- CHF
- Peripheral vascular disease
- CVA/TIA
- Dementia
- COPD
- Connective tissue disease
- Peptic ulcer disease
- Liver disease
- Diabetes
- Hemiplegia
- CKD/ESRD
- Solid tumor
- Leukemia
- Lymphoma
- Disseminated cancer
- Depression
- Anxiety
- Chronic pain
- Substance use disorder - opioids
- Substance use disorder - alcohol
- Substance use disorder - cocaine
- Substance use disorder - marijuana
- Substance use disorder - other
- AIDS
- None

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Pre-injury anticoagulant use?

- Yes
- No

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Anticoagulant

- Warfarin
- Dabigatran
- Rivaroxaban
- Apixaban
- Edoxaban
- Enoxaparin (therapeutic dosing)
- Other

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Pre-injury antiplatelet use?

- Yes
- No

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Antiplatelet

- Aspirin
- Clopidogrel
- Ticagrelor
- Prasugrel
- Other

# Injury Related Information

Mechanism of Injury

- GSW
- Stabbing
- Penetrating, other
- Fall
- Found down
- Motor vehicle collision
- Motorcycle collision
- Pedestrian struck
- Crush injury
- Bicycle accident
- Other

Fall height

- Ground level fall
- < 10 feet
- ≥ 10 feet
- Unknown

Mechanism of injury, other

\_\_\_\_\_

ISS

\_\_\_\_\_

## Abbreviated Injury Severity Score

	0	1	2	3	4	5	6
Head	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neck	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thorax	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abdomen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upper extremity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower extremity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Arrival systolic blood pressure

\_\_\_\_\_

Arrival heart rate

\_\_\_\_\_

Arrival oxygen saturation

\_\_\_\_\_

Arrival GCS - Eye

\_\_\_\_\_

Arrival GCS - Voice

\_\_\_\_\_

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Arrival GCS - Motor \_\_\_\_\_

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Arrival GCS - Total \_\_\_\_\_

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Was the patient intubated?  Yes - pre-hospital  
 Yes - trauma bay/emergency department  
 Yes - during hospitalization  
 No

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Total ventilator days \_\_\_\_\_



# Trauma Bay Evaluation

## Initial Labs

WBC \_\_\_\_\_

Hb \_\_\_\_\_

Platelets \_\_\_\_\_

Creatinine \_\_\_\_\_

Lactate \_\_\_\_\_

INR \_\_\_\_\_

Albumin \_\_\_\_\_

Total Bilirubin \_\_\_\_\_

EtOH \_\_\_\_\_

Troponin \_\_\_\_\_

Toxicology Screen (check all that apply)

- Amphetamines
- Benzodiazepines
- Cannabinoids
- Cocaine
- Opioids
- PCP
- Other
- None

If other, what was toxicology positive for? \_\_\_\_\_

**Initial Imaging**

Chest XR  Yes  
 No

Chest XR Result  Negative for acute traumatic findings  
 Positive for acute traumatic findings

Chest XR Findings \_\_\_\_\_

Pelvis XR  Yes  
 No

Pelvis XR Results  Negative for acute traumatic findings  
 Positive for acute traumatic findings

Pelvis XR Findings \_\_\_\_\_

Extremity XR?  Yes  
 No

Which extremities?  Right upper extremity  
 Left upper extremity  
 Right lower extremity  
 Left lower extremity

Extremity XR Findings \_\_\_\_\_

FAST Performed?  Yes  
 No

FAST Results  Negative  
 Positive  
 Indeterminate  
 Unknown

CT Head Performed?  Yes  
 No

CT Head Results?  Negative for acute traumatic findings  
 Positive for acute traumatic findings

CT Head Findings \_\_\_\_\_

CT Cervical Spine (including CTA Neck) performed?  Yes  
 No

CT Cervical Spine Results?  Negative for acute traumatic findings  
 Positive for acute traumatic findings

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CT Cervical Spine Findings

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CT Chest performed?

- Yes
- No

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CT Chest Results?

- Negative for acute traumatic findings
- Positive for acute traumatic findings

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CT Chest Findings

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CT Abdomen/Pelvis performed?

- Yes
- No

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CT Abdomen/Pelvis Results?

- Negative for acute traumatic findings
- Positive for acute traumatic findings

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CT Abdomen/Pelvis Findings

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CT (including CTA) Extremities performed?

- Yes
- No

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CT Extremity Results?

- Negative for acute traumatic findings
- Positive for acute traumatic findings

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CT Extremity Findings  
(include which limb is affected)

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# Advanced Directives & Palliative Care

Date & Time of Palliative Care Evaluation

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Primary reason for palliative care consultation

- Goals of care discussion
  - Symptom management
  - Support for family members
  - Hospice evaluation
  - Other
- 

If other, what was the indication for palliative care consultation?

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Identified decision maker

- Patient
  - Spouse/significant other
  - Child/children
  - Parent(s)
  - Sibling(s)
  - Other relative
  - Friend
  - Other non-relative
- 

If other relative, specify relationship

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If other non-relative, specify relationship

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Code Status on Admission

- Full Code
  - DNR/DNI
  - DNR, may intubate
  - May resuscitate, DNI
  - DNR-CCA
  - Palliative & supportive care (also called DNR-CC)
- 

Did patient have advanced directives/POLST present on admission?

- Yes
  - No
- 

Artificial Ventilation?

- yes - no time limit
  - yes - time limited
  - CPAP/BiPAP only
  - no artificial ventilation
- 

Blood Transfusion?

- yes
  - no
- 

Hospital Transfer?

- Transfer for any situation requiring hospital care
- Transfer for pain or severe symptoms that cannot otherwise be controlled
- Do not transfer

Medical workup?	<input type="radio"/> any necessary tests <input type="radio"/> tests only needed for symptomatic treatment or comfort <input type="radio"/> do not perform any tests
Antibiotics	<input type="radio"/> no limitations <input type="radio"/> oral only, for any medical indication <input type="radio"/> oral only, for symptom relief <input type="radio"/> no antibiotics
Artificial nutrition and hydration?	<input type="radio"/> fluids & nutrition indefinitely <input type="radio"/> fluids & nutrition for time limited trial <input type="radio"/> fluids only, but no artificial nutrition <input type="radio"/> no fluids or nutrition
Dialysis	<input type="radio"/> chronic dialysis for ESRD <input type="radio"/> dialysis for time limited trial <input type="radio"/> no acute or chronic dialysis
Code Status on Discharge	<input type="radio"/> Full Code <input type="radio"/> DNR/DNI <input type="radio"/> DNR, may intubate <input type="radio"/> May resuscitate, DNI <input type="radio"/> Palliative & supportive care
Did patient have advanced directives/POLST present on discharge?	<input type="radio"/> yes <input type="radio"/> no - patient/family preference <input type="radio"/> no - patient expired during hospitalization
Artificial Ventilation?	<input type="radio"/> yes - no time limit <input type="radio"/> yes - time limited <input type="radio"/> CPAP/BiPAP only <input type="radio"/> no artificial ventilation
Blood Transfusion?	<input type="radio"/> yes <input type="radio"/> no
Hospital Transfer?	<input type="radio"/> Transfer for any situation requiring hospital care <input type="radio"/> Transfer for pain or severe symptoms that cannot otherwise be controlled <input type="radio"/> Do not transfer
Medical workup?	<input type="radio"/> any necessary tests <input type="radio"/> tests only needed for symptomatic treatment or comfort <input type="radio"/> do not perform any tests
Antibiotics	<input type="radio"/> no limitations <input type="radio"/> oral only, for any medical indication <input type="radio"/> oral only, for symptom relief <input type="radio"/> no antibiotics
Artificial nutrition and hydration?	<input type="radio"/> fluids & nutrition indefinitely <input type="radio"/> fluids & nutrition for time limited trial <input type="radio"/> fluids only, but no artificial nutrition <input type="radio"/> no fluids or nutrition

---

Dialysis

- chronic dialysis for ESRD
- dialysis for time limited trial
- no acute or chronic dialysis

# Trauma-Specific Frailty Index

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Comorbidities - Select All That Apply

- Cancer history
- Myocardial infarction
- CABG history
- PCI history
- On medication for CAD?
- Dementia - severe
- Dementia - moderate
- Dementia - mild

---

Does patient require help with grooming?

- Yes
- No

---

Does patient require help with managing money?

- Yes
- No

---

Does patient require help with household work?

- Yes
- No

---

Does patient require help with toileting?

- Yes
- No

---

Does patient require an assistive device for walking?

- Wheelchair
- Walker
- Cane
- None

---

How often does patient feel less useful?

- Most time
- Sometimes
- Never

---

How often does the patient feel sad?

- Most time
- Sometimes
- Never

---

How often does the patient feel effort to do everything?

- Most time
- Sometimes
- Never

---

How often does the patient fall?

- Most time
- Sometimes
- Never

---

How often does the patient feel lonely?

- Most time
- Sometimes
- Never

---

Is the patient sexually active?

- Yes
- No

---

What is the patient's albumin?

- < 3
- > 3

# Interventions

## Procedural Interventions - only include those occurring after initial resuscitation

Initiation of renal replacement therapy

- Yes  
 No

Timing of RRT

- Before palliative care consultation  
 After palliative care consultation

Initiation of ECMO

- Yes  
 No

Timing of ECMO

- Before palliative care consultation  
 After palliative care consultation

Intracranial pressure monitor placement

- Yes  
 No

Timing of ICP monitor placement

- Before palliative care consultation  
 After palliative care consultation

Central venous access placement (not as part of initial resuscitation)

- Yes  
 No

Timing of central venous access placement

- Before palliative care consultation  
 After palliative care consultation

Chest tube placement (not as part of initial resuscitation)

- Yes  
 No

Timing of chest tube placement

- Before palliative care consultation  
 After palliative care consultation

Intubation (not as part of initial resuscitation)

- Yes  
 No

Number of ventilator days

\_\_\_\_\_

Timing of intubation

- Before palliative care consultation  
 After palliative care consultation

## Operative Interventions by Body Region - BEFORE PALLIATIVE CONSULTATION

Did the patient have any operative interventions, including tracheostomy or enteral access placement, prior to palliative care consultation?

- Yes  
 No

Head

- Yes  
 No



---

Operations performed

---

Face, including eyes, ears, lips, and maxillofacial

- Yes  
 No

---

Operations performed

---

Neck (including tracheostomy), excluding cervical spine

- Yes  
 No

Tracheostomy?

- Yes  
 No

Number of ventilator days prior to tracheostomy

---

Number of ventilator days after tracheostomy

---

---

Operations performed

---

Thorax, including rib cage

- Yes  
 No

---

Operations performed

---

Abdomen (including enteral feeding access), including pelvic organs

- Yes  
 No

PEG, or other enteral access

- Yes  
 No

---

Operations performed

---

Spine

- Yes  
 No

---

Operations performed

---

Upper extremities, including shoulder

- Yes  
 No

---

Operations performed

---

Lower extremities, including bony pelvis

- Yes  
 No

---

Operations performed

---

External, including burns

- Yes  
 No

---

Operations performed

---

### Operative Interventions by Body Region - AFTER PALLIATIVE CONSULTATION

Did the patient have any operative interventions, including tracheostomy or enteral access placement, after palliative care consultation?

- Yes  
 No

---

Head

- Yes  
 No

---

Operations performed

---

Face, including eyes, ears, lips, and maxillofacial

- Yes  
 No

---

Operations performed

---

Neck (including tracheostomy), excluding cervical spine

- Yes  
 No

---

Tracheostomy?

- Yes  
 No

---

Number of ventilator days prior to tracheostomy

---



---

Number of ventilator days after tracheostomy

---



---

Operations performed

---

Thorax, including rib cage

- Yes  
 No

---

Operations performed

---

---

Abdomen (including enteral feeding access), including pelvic organs

- Yes
- No

---

PEG, or other enteral access

- Yes
- No

---

Operations performed

---

---

Spine

- Yes
- No

---

Operations performed

---

---

Upper extremities, including shoulder

- Yes
- No

---

Operations performed

---

---

Lower extremities, including bony pelvis

- Yes
- No

---

Operations performed

---

---

External, including burns

- Yes
- No

---

Operations performed

---

# Outcomes

Did the patient experience any of the following? Only include those occurring after initial resuscitation.

- Unplanned intubation
- Unplanned ICU admission
- Unplanned return to OR
- Pneumonia
- CLABSI
- CAUTI
- Surgical site infection
- C. diff
- Bacteremia
- MI
- DVT/PE
- Bleeding
- Pressure ulcer
- Transfusion
- None

Was pneumonia ventilator associated?

- Yes
- No

Where did bleeding occur?

- Surgical site
- Other site

Was code status changed at any time during hospitalization?

- Yes
- No

What was code status prior to change?

- Full code
- DNR/may intubate
- May resuscitate/DNI
- DNR/DNI
- DNR-CCA
- Palliative care only (also called DNR-CC)

What was code status after change?

- Full code
- DNR/may intubate
- May resuscitate/DNI
- DNR/DNI
- DNR-CCA
- Palliative care only (also called DNR-CC)

When was the code status changed?

\_\_\_\_\_

Was patient readmitted for any reason within 30 days of discharge?

- Yes
- No

Did the patient expire within 30 days of discharge?

- Yes
- No
- Unknown

Did the patient expire in the hospital?

- Yes
- No

Was death secondary to discontinuation of life-sustaining measures?

- Yes
- No

---

If death secondary to withdrawal of life-sustaining treatment, how long between withdrawal and patient's death?

- 0-6 hours
- 7-12 hours
- 13-24 hours
- 25-48 hours
- 49-72 hours
- >72 hours

---

Code status at time of death

- Full code
- DNR/DNI
- DNR/may intubate
- May resuscitate/DNI
- DNR-CCA
- Palliative & supportive care (also called DNR-CC, including hospice)

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Location of in-hospital death

- Intensive care unit
- Intermediate care unit/step-down unit
- Med/surg floor
- Other

---

If other, where did the patient expire?

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