



*Tulane Human Research Protection Office
Institutional Review Boards
Biomedical
Social Behavioral
FWA00002055*

DATE: March 13, 2025

TO: Sharven Taghavi

FROM: Tulane University Biomedical IRB

STUDY TITLE: Optimizing Venous Thromboembolism Prophylaxis (VTEp) in Patients Who Have Sustained Operative Spinal Trauma

REF #: 2025-025

SUBMISSION TYPE: Initial Submission

ACTION: **APPROVED**

On March 11, 2025, the Tulane University Biomedical IRB made a determination of Conditions Required for Approval for the initial submission of this minimal risk study in accordance with the appropriate research regulations.

On March 12, 2025, the Tulane Investigator's response, along with the revised and requested study documents provided, were reviewed and it was determined that the stipulations have been met.

The following items were included with this submission:

- Data Collection Sheet.xlsx (Data Collection Tool)
- Point by Point Response.docx (Point by Point Response)
- UMCNO Data Use Authorization ST.pdf (Data Use Agreement)
- UMCNO Research Review Application ST.pdf (Application Form)
- Updated Study Protocol (Study Protocol)
- VTE Prophylaxis Multicenter Trial Protocol.docx (Study Protocol)

This study is approved for the enrollment of 1000 subjects/charts.

This study is granted approval on March 12, 2025. The first Annual Progress Report is due on March 11, 2026.

The IRB has approved the following site: Tulane School of Medicine, LCMC - University Medical Center

All research must be conducted in accordance with this approved submission.

If this protocol involves sites not listed under the Tulane FWA, this determination is contingent upon the investigator obtaining sponsor approval to conduct this research and authorization from sites not listed under the Tulane FWA for the use of those respective facilities and/or the access of the facilities data for

the purposes of this research. It is the responsibility of the investigator to obtain the necessary authorization from the respective sites and approval from sponsors. The IRB is not responsible for verifying that these permissions have been granted.

Please submit any proposed changes to the research study, including enrollment of additional study participants, to the IRB for review and approval prior to implementation, unless a change is necessary to avoid immediate harm to subjects. If subject safety becomes an issue, please notify the Tulane University Human Research Protection Office (HRPO) as soon as possible.

The informed consent process begins with a description of the study and assurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study with dialogue between the Investigator and research participant. Federal regulations require each participant to receive a copy of their signed consent form unless the IRB waives this requirement.

Please submit any unanticipated problems involving risk to subjects or others, deviations from the approved research, non-compliance, and complaints to the IRB in accordance with Tulane University Human Research Protection Program (HRPP) Standard Operating Procedures (SOPs). Please contact the HRPO via irbmain@tulane.edu or (504) 988-2665 if you have questions and/or concerns regarding reporting events. In addition, please also submit any reports generated by the DSMB or oversight committee to the IRB, if required.

Pursuant to Tulane University HRPP SOPs, a study progress report will be required annually.

If your study is supported in whole or in part by a federal grant, please note that Federal regulations prohibit the use of Federal funds for human subject research that is not conducted under current IRB approval. Loss of IRB approval for this study due to lapse, suspension or termination will be communicated by the Tulane IRB to Tulane's Office of Grants and Contracts Accounting, which may result in an administrative hold being placed on the related grant(s). Therefore, to avoid an interruption in research activity, including use of coded, identifiable human data or biospecimens, and access to grant funds it is critical that IRB approval for the study be maintained.

When the Tulane IRB determination allows for the use of medical records under this protocol, it is the responsibility of the investigator to obtain authorization to access the records for research purposes from the institution housing the medical records.

Please notify the IRB within 30 days of completion of all study activities and data analysis by submitting a Study Closure Form.

The Principal Investigator is responsible for being familiar with and complying with Tulane University HRPP SOPs found at <https://research.tulane.edu/hrpo>. Please do not hesitate to contact our office with any questions or concerns.

We encourage investigators and research staff to provide feedback about the IRB review process, our website, and any other aspects of the HRPP that will help us to identify improvements we can make. You can complete this form in an anonymous manner at [HRPO/IRB Feedback Survey](#).

Sincerely,

Tulane University Human Research Protection Office (HRPO)

Please note that the actual signature by the IRB Chair(s) is not required for this document to be effective. IRBManager generates this letter pursuant to the IRB Chair's electronic signature and approval. This process is consistent with Federal Regulations and Tulane Standard Operating Policies with respect to the

IRB and Human Research Protection Office, which consider electronically generated documents as official notices to sponsors and others of approval, disapproval or other IRB decisions. Please refer to Tulane's Electronic Signatures and Records Policy by visiting the HRPO website at <https://research.tulane.edu/hrpo>.

Optimizing Venous Thromboembolism Prophylaxis (VTEp) in Patients Who Have Sustained Operative Spinal Trauma

Admission Data

Age (in years): _____ (range 16 – 99 years)

Biological sex (circle one): Male Female

Race (circle one): White Black/AA Asian American Indian Pacific Islander
Other/Unknown

Ethnicity (circle one): Non-Hispanic/Non-Latino Hispanic/Latino

Comorbidities/Preexisting conditions

Pre-existing anticoagulant use (circle one): No Yes

Creatinine clearance: _____

Injury characteristics

Parameter	Value (numerical entry only unless otherwise specified)
ICD-10 primary external cause code	
ICD-10 Additional External Cause Code	
ICD-10 Injury Diagnoses	
Abbreviated injury scale (AIS) code	
AIS version	
ASIA score	
Spinal column injury (circle one)	No Yes
Location of bony spinal injury (circle one)	Cervical, thoracic, lumbar, or combined
Spinal cord involvement (circle one)	No Yes
Epidural hematoma (circle one)	No Yes

ED/Hospital presentation

Initial ED vitals – 1st ones obtained in ED	Value (numerical entry only)
Body temperature (BT; degrees Celsius)	
Systolic blood pressure (SBP; mmHg)	
Diastolic blood pressure (DBP; mmHg)	
Heart rate (HR; beats per minute)	
Respiratory rate (RR; breaths per minute)	
Oxygen saturation (SpO ₂ ; %)	
Lowest ED SBP (mmHG, in first 24 hours)	
Initial Glasgow Coma Scale (GCS) (Range 3-15)	
Initial GCS-Eye (range 1-4)	
Initial GCS-Verbal (range 1-5)	

Initial GCS-Motor (range 1-6)	
Highest GCS Total (in first 24 hours)	
Highest GCS-Motor	

VTE prophylaxis (VTEp)

Parameter	Value (numerical entry only unless otherwise specified)	
Prophylaxis given (circle one)	No	Yes
Type of prophylaxis (circle one)	Lovenox	Heparin
Received VTEp (circle one)	No	Yes
Time to first dose (in hours)		
VTEp drug (circle one)	None	LMWH Direct thrombin inhibitor Xa inhibitor Unfractionated heparin
Number of missed VTEp doses		
Prothrombin time (PT; in seconds)		
Partial thromboplastin time (PTT; in seconds)		
International Normalized Ratio (INR)		

Surgical intervention/Operative data

Parameter	Value (numerical entry only unless otherwise specified)	
Pre-operative pressor requirement (circle one)	No	Yes
Operative spine management (circle one)	No	Yes
Time to operative intervention (in minutes)		
List ICD-10 codes for operation(s) in the first 72 hours		
Pre-operative functional status		
Post-operative functional status		
Post-operative mean arterial pressure (MAP) goal		
Post-operative pressor requirement (circle one)	No	Yes
Anterior	No	Yes
Decompression C1	No	Yes
Decompression C2	No	Yes
Decompression C3	No	Yes
Decompression C4	No	Yes
Decompression C5	No	Yes

Decompression C6	No	Yes
Decompression C7	No	Yes
Decompression T1	No	Yes
Decompression T2	No	Yes
Decompression T3	No	Yes
Decompression T4	No	Yes
Decompression T5	No	Yes
Decompression T6	No	Yes
Decompression T7	No	Yes
Decompression T8	No	Yes
Decompression T9	No	Yes
Decompression T10	No	Yes
Decompression T11	No	Yes
Decompression T12	No	Yes
Decompression L1	No	Yes
Decompression L2	No	Yes
Decompression L3	No	Yes
Decompression L4	No	Yes
Decompression L5	No	Yes
Instrumentation C1	No	Yes
Instrumentation C2	No	Yes
Instrumentation C3	No	Yes
Instrumentation C4	No	Yes
Instrumentation C5	No	Yes
Instrumentation C6	No	Yes
Instrumentation C7	No	Yes
Instrumentation T1	No	Yes
Instrumentation T2	No	Yes
Instrumentation T3	No	Yes
Instrumentation T4	No	Yes
Instrumentation T5	No	Yes
Instrumentation T6	No	Yes
Instrumentation T7	No	Yes
Instrumentation T8	No	Yes
Instrumentation T9	No	Yes
Instrumentation T10	No	Yes
Instrumentation T11	No	Yes
Instrumentation T12	No	Yes
Instrumentation L1	No	Yes

Instrumentation L2	No	Yes
Instrumentation L3	No	Yes
Instrumentation L4	No	Yes
Instrumentation L5	No	Yes
Posterior	No	Yes
Decompression C1	No	Yes
Decompression C2	No	Yes
Decompression C3	No	Yes
Decompression C4	No	Yes
Decompression C5	No	Yes
Decompression C6	No	Yes
Decompression C7	No	Yes
Decompression T1	No	Yes
Decompression T2	No	Yes
Decompression T3	No	Yes
Decompression T4	No	Yes
Decompression T5	No	Yes
Decompression T6	No	Yes
Decompression T7	No	Yes
Decompression T8	No	Yes
Decompression T9	No	Yes
Decompression T10	No	Yes
Decompression T11	No	Yes
Decompression T12	No	Yes
Decompression L1	No	Yes
Decompression L2	No	Yes
Decompression L3	No	Yes
Decompression L4	No	Yes
Decompression L5	No	Yes
Instrumentation C1	No	Yes
Instrumentation C2	No	Yes
Instrumentation C3	No	Yes
Instrumentation C4	No	Yes
Instrumentation C5	No	Yes
Instrumentation C6	No	Yes
Instrumentation C7	No	Yes
Instrumentation T1	No	Yes
Instrumentation T2	No	Yes
Instrumentation T3	No	Yes

Instrumentation T4	No	Yes
Instrumentation T5	No	Yes
Instrumentation T6	No	Yes
Instrumentation T7	No	Yes
Instrumentation T8	No	Yes
Instrumentation T9	No	Yes
Instrumentation T10	No	Yes
Instrumentation T11	No	Yes
Instrumentation T12	No	Yes
Instrumentation L1	No	Yes
Instrumentation L2	No	Yes
Instrumentation L3	No	Yes
Instrumentation L4	No	Yes
Instrumentation L5	No	Yes
Number of Vertebral Levels Injured		
Number of Vertebral Levels in Fixation		

Patient outcomes

Parameter	Value (numerical entry only unless otherwise specified)	
Total hospital length of stay (days)		
Total ICU length of stay (days)		
Total ventilator days		
	Circle one choice for each variable	
Bleeding complication (circle one)	No	Yes
Development of DVT: (Circle one)	No	Yes
Development of PE: (Circle one)	No	Yes
In-Hospital Mortality: (Circle one)	No	Yes
Drain placement? (circle one)	No	Yes
Epidural hematoma	No	Yes
Acute kidney injury	No	Yes
Acute respiratory distress syndrome	No	Yes
Cardiac arrest with CPR	No	Yes
Delirium	No	Yes
Extremity compartment syndrome	No	Yes
Myocardial infarction	No	Yes
Organ space/Surgical site infection	No	Yes
Superficial surgical site infection	No	Yes

Pressure ulcer	No	Yes
Severe sepsis	No	Yes
Unplanned ICU admission	No	Yes
Unplanned return to OR	No	Yes
Osteomyelitis	No	Yes
Ventilator-associated pneumonia	No	Yes



Eastern Association for the Surgery of Trauma
 Advancing Science, Fostering Relationships, and Building Careers

**EAST MULTICENTER STUDY
 DATA DICTIONARY**

Venous Thromboembolism Prophylaxis (VTEp) in Patients Who Have Sustained Operative Spinal Trauma Data Dictionary

Data Entry Points and appropriate definitions / clarifications: **FOR ALL DATA ENTRY POINTS, NO RESPONSE INDICATES INFORMATION IS NOT AVAILABLE**

Entry space	Definition/Instructions
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<u>Admission Data</u>	
Age	Numerical Value for Age at Presentation (in years, range 16-99 years) <ul style="list-style-type: none"> • <i>Patient's age at time of injury.</i>
Biological Sex	Select One: Male <i>or</i> Female
Race	Report all that apply: White, Black/AA, Asian, American Indian, Pacific Islander, <i>or</i> Other/Unknown
Ethnicity	Select One: Non-Hispanic/Non-Latino <i>or</i> Hispanic/Latino

<u>Comorbidities/Preexisting Conditions</u>	
Pre-existing Anticoagulant Use	Select One: Yes <i>or</i> No <ul style="list-style-type: none"> • <i>Pre-existing medical record of receiving medication that affects clotting: anticoagulants, antiplatelet agents, thrombin inhibitors, or thrombolytic agents.</i> • <i>Note: Must be an active medication.</i> • <i>Note: Do not include Aspirin as an anticoagulant medication.</i>
Creatinine Clearance	Numerical Value (in mL/min)

<u>Injury Characteristics</u>	
ICD-10 Primary External Cause Code	Numerical Value
ICD-10 Additional External Cause Code	Numerical Value
ICD-10 Injury Diagnoses	<i>Select from a dropdown list of ICD-10 injury diagnoses.</i>
Injury Severity Score (ISS)	Numerical Value
Abbreviated Injury Scale (AIS) Head	Numerical Value for AIS body region = Head

AIS Neck	Numerical Value for AIS body region = Neck
AIS Chest	Numerical Value for AIS body region = Chest
AIS Abdomen	Numerical Value for AIS body region = Abdomen
AIS Spine	Numerical Value for AIS body region = Spine
American Spinal Injury Association (ASIA) Impairment Scale	Select One: Grade A, Grade B, Grade C, Grade D, or Grade E Choose the single best grade based on initial exam. Grade A – Complete: No motor or sensory function preserved in the sacral segments S4-5 Grade B – Sensory Incomplete: Sensory but not motor function preserved below the neurological level and includes the sacral segments S4-S5 Grade C – Motor Incomplete: Motor function preserved below the neurological level; more than half of key muscles below the level have a muscle grade < 3 Grade D – Motor Incomplete: Same as C, but at least half of key muscles below the level have a muscle grade ≥ 3 Grade E – Normal: Motor and sensory function are normal
Spinal Column Injury	Select One: Yes or No <ul style="list-style-type: none"> Any traumatic injury to the bony vertebral structures of the spine
Location of Bony Spinal Injury	If “Yes” for Spinal Column Injury, select one of the following: Cervical, Thoracic, Lumbar, or Combined
Spinal Cord Involvement	Select One: Yes or No
Preoperative Epidural Hematoma	Select One: Yes or No <ul style="list-style-type: none"> Hemorrhage in the epidural space identified on initial spinal imaging (CT/MRI) prior to any operative intervention

ED/Hospital Presentation

Body Temperature	Numerical Value (in degrees Celsius) <ul style="list-style-type: none"> First documented body temperature
Systolic Blood Pressure	Numerical Value (in mmHg) <ul style="list-style-type: none"> First documented SBP
Diastolic Blood Pressure	Numerical Value (in mmHg) <ul style="list-style-type: none"> First documented DBP
Lowest 24h SBP	Numerical Value (in mmHg) <ul style="list-style-type: none"> Lowest documented SBP in first 24 hours
Heart Rate	Numerical Value (in beats per minute) <ul style="list-style-type: none"> First documented HR
Respiratory Rate	Numerical Value (in breaths per minute) <ul style="list-style-type: none"> First documented RR
Oxygen Saturation	Numerical Value (in %) <ul style="list-style-type: none"> First documented SpO2
Initial Total Glasgow Coma Scale (GCS)	Numerical Value (range 3-15) <ul style="list-style-type: none"> First documented GCS-Total

Initial GCS-Eye	Numerical Value (range 1-4) <ul style="list-style-type: none"> • <i>First documented GCS-Eye</i>
Initial GCS-Verbal	Numerical Value (range 1-5) <ul style="list-style-type: none"> • <i>First documented GCS-Verbal</i>
Initial GCS-Motor	Numerical Value (range 1-6) <ul style="list-style-type: none"> • <i>First documented GCS-Motor</i>
Highest 24h GCS-Total	Numerical Value (range 3-15, in first 24 hours)
Highest 24h GCS-Motor	Numerical Value (range 3-15, in first 24 hours)

VTE Prophylaxis (VTEp)

Chemical VTEp Given	Select One: Yes <i>or</i> No
VTEp Drug	Select One: None, LMWH, Direct thrombin inhibitor, Xa inhibitor, <i>or</i> Unfractionated heparin
Time to First VTEp Dose	Numerical Value (in hours, rounded to the nearest whole hour) <ul style="list-style-type: none"> • <i>If time interval ends ≥ 0.5 hours, rounds up (12.5 \rightarrow 13 hours)</i> • <i>If exact time is unknown, use best available estimate based on documentation.</i>
Number of Missed VTEp Doses	Numerical Value <ul style="list-style-type: none"> • <i>Includes doses that were missed for any reason.</i>
Prothrombin Time (PT)	Numerical Value (in seconds)
Partial Thromboplastin Time (PTT)	Numerical Value (in seconds)
International Normalized Ratio (INR)	Numerical Value
Thromboelastography (TEG)	Select One: Normal <i>or</i> Abnormal

Surgical Intervention/Operative Data

Pre-operative Pressor Requirement	Select One: Yes <i>or</i> No
Operative Spine Management	Select One: Yes <i>or</i> No
Time To Operative Intervention	Numerical Value (in hours) <ul style="list-style-type: none"> • <i>If time interval ends ≥ 0.5 hours, round up (ex: 12.5 \rightarrow 13 hours)</i> • <i>If exact time is unknown, use best available estimate based on documentation.</i>
ICD-10 Operative Codes	<i>Select from a dropdown list of ICD-10 codes for operation(s) in the first 72 hours</i>
Pre-Operative Functional Status	Select One: Fully independent, ambulates with assistance, non-ambulatory but independent ADLs, <i>or</i> dependent. <i>Prior to spinal operation.</i>
Post-Operative Functional Status	Select One: Fully independent, ambulates with assistance, non-ambulatory but independent ADLs, <i>or</i> dependent. <i>Upon discharge.</i>

Post-Operative Mean Arterial Pressure (MAP) Goal	Numerical Value (in mmHg)
Post-Operative Pressor Requirement	Select One: <i>Yes or No</i>
Anterior	Select One: <i>Yes or No</i>
Decompression C1	Select One: <i>Yes or No</i>
Decompression C2	Select One: <i>Yes or No</i>
Decompression C3	Select One: <i>Yes or No</i>
Decompression C4	Select One: <i>Yes or No</i>
Decompression C5	Select One: <i>Yes or No</i>
Decompression C6	Select One: <i>Yes or No</i>
Decompression C7	Select One: <i>Yes or No</i>
Decompression T1	Select One: <i>Yes or No</i>
Decompression T2	Select One: <i>Yes or No</i>
Decompression T3	Select One: <i>Yes or No</i>
Decompression T4	Select One: <i>Yes or No</i>
Decompression T5	Select One: <i>Yes or No</i>
Decompression T6	Select One: <i>Yes or No</i>
Decompression T7	Select One: <i>Yes or No</i>
Decompression T8	Select One: <i>Yes or No</i>
Decompression T9	Select One: <i>Yes or No</i>
Decompression T10	Select One: <i>Yes or No</i>
Decompression T11	Select One: <i>Yes or No</i>
Decompression T12	Select One: <i>Yes or No</i>
Decompression L1	Select One: <i>Yes or No</i>
Decompression L2	Select One: <i>Yes or No</i>
Decompression L3	Select One: <i>Yes or No</i>
Decompression L4	Select One: <i>Yes or No</i>
Decompression L5	Select One: <i>Yes or No</i>
Instrumentation C1	Select One: <i>Yes or No</i>
Instrumentation C2	Select One: <i>Yes or No</i>

Instrumentation C3	Select One: Yes or No
Instrumentation C4	Select One: Yes or No
Instrumentation C5	Select One: Yes or No
Instrumentation C6	Select One: Yes or No
Instrumentation C7	Select One: Yes or No
Instrumentation T1	Select One: Yes or No
Instrumentation T2	Select One: Yes or No
Instrumentation T3	Select One: Yes or No
Instrumentation T4	Select One: Yes or No
Instrumentation T5	Select One: Yes or No
Instrumentation T6	Select One: Yes or No
Instrumentation T7	Select One: Yes or No
Instrumentation T8	Select One: Yes or No
Instrumentation T9	Select One: Yes or No
Instrumentation T10	Select One: Yes or No
Instrumentation T11	Select One: Yes or No
Instrumentation T12	Select One: Yes or No
Instrumentation L1	Select One: Yes or No
Instrumentation L2	Select One: Yes or No
Instrumentation L3	Select One: Yes or No
Instrumentation L4	Select One: Yes or No
Instrumentation L5	Select One: Yes or No
Posterior	Select One: Yes or No
Decompression C1	Select One: Yes or No
Decompression C2	Select One: Yes or No
Decompression C3	Select One: Yes or No
Decompression C4	Select One: Yes or No
Decompression C5	Select One: Yes or No
Decompression C6	Select One: Yes or No

Decompression C7	Select One: Yes or No
Decompression T1	Select One: Yes or No
Decompression T2	Select One: Yes or No
Decompression T3	Select One: Yes or No
Decompression T4	Select One: Yes or No
Decompression T5	Select One: Yes or No
Decompression T6	Select One: Yes or No
Decompression T7	Select One: Yes or No
Decompression T8	Select One: Yes or No
Decompression T9	Select One: Yes or No
Decompression T10	Select One: Yes or No
Decompression T11	Select One: Yes or No
Decompression T12	Select One: Yes or No
Decompression L1	Select One: Yes or No
Decompression L2	Select One: Yes or No
Decompression L3	Select One: Yes or No
Decompression L4	Select One: Yes or No
Decompression L5	Select One: Yes or No
Instrumentation C1	Select One: Yes or No
Instrumentation C2	Select One: Yes or No
Instrumentation C3	Select One: Yes or No
Instrumentation C4	Select One: Yes or No
Instrumentation C5	Select One: Yes or No
Instrumentation C6	Select One: Yes or No
Instrumentation C7	Select One: Yes or No
Instrumentation T1	Select One: Yes or No
Instrumentation T2	Select One: Yes or No
Instrumentation T3	Select One: Yes or No
Instrumentation T4	Select One: Yes or No

Instrumentation T5	Select One: Yes or No
Instrumentation T6	Select One: Yes or No
Instrumentation T7	Select One: Yes or No
Instrumentation T8	Select One: Yes or No
Instrumentation T9	Select One: Yes or No
Instrumentation T10	Select One: Yes or No
Instrumentation T11	Select One: Yes or No
Instrumentation T12	Select One: Yes or No
Instrumentation L1	Select One: Yes or No
Instrumentation L2	Select One: Yes or No
Instrumentation L3	Select One: Yes or No
Instrumentation L4	Select One: Yes or No
Instrumentation L5	Select One: Yes or No
Number of Vertebral Levels Injured	Numerical Value
Number of Vertebral Levels Involved in Fixation	Numerical Value

Patient Outcomes

Total Hospital Length Of Stay (Days)	Numerical Value <ul style="list-style-type: none"> • Round up to the nearest full day. A partial day should be counted as a full day.
Total ICU Length Of Stay (Days)	Numerical Value <ul style="list-style-type: none"> • Round to the nearest full day. A partial day should be counted as a full day.
Total Ventilator Days	Numerical Value <ul style="list-style-type: none"> • Round to the nearest full day. A partial day should be counted as a full day. • Operation-associated ventilation should NOT be included in this data point.
Reoperation for Bleeding	Select One: Yes or No Select "Yes" if the patient returned to the OR specifically for bleeding control.
Bleeding Complication – Epidural Hematoma	Select One: Yes or No Bleeding in the epidural space confirmed by imaging and/or requiring intervention.
Bleeding Complication – Wound/Operative Site Hematoma	Select One: Yes or No Clinically apparent hematoma at surgical site, confirmed by exam or reoperation.

Bleeding Complication – Gastrointestinal Bleeding	Select One: Yes or No <i>Overt bleeding (melena/hematemesis) or drop in Hgb with GI source confirmed on EGD or imaging.</i>
Development of Venous Thromboembolism (VTE)	Select One: Yes or No <ul style="list-style-type: none"> • <i>Developed after initial hospital arrival.</i> • <i>This includes DVT and/or PE.</i>
Development Of Deep Vein Thrombosis (DVT)	Select One: Yes or No <ul style="list-style-type: none"> • <i>Developed after initial hospital arrival.</i> • <i>Must be confirmed by venogram, ultrasound, or CT imaging.</i>
Development Of Pulmonary Embolism (PE)	Select One: Yes or No <ul style="list-style-type: none"> • <i>Developed after initial hospital arrival.</i>
In-Hospital Mortality	Select One: Yes or No
Drain Placement?	Select One: Yes or No <ul style="list-style-type: none"> • <i>Any surgical drain placed intraoperatively or postoperatively at the spinal surgical site for the purpose of fluid or blood evacuation via passive or active drains (ex: Jackson-Pratt, Hemovac, Penrose)</i>
Acute Kidney Injury	Select One: Yes or No
Acute Respiratory Distress Syndrome	Select One: Yes or No
Cardiac Arrest with CPR	Select One: Yes or No
Delirium	Select One: Yes or No
Extremity Compartment Syndrome	Select One: Yes or No
Myocardial Infarction	Select One: Yes or No
Organ Space/Surgical Site Infection	Select One: Yes or No
Superficial Surgical Site Infection	Select One: Yes or No
Pressure Ulcer	Select One: Yes or No
Severe Sepsis	Select One: Yes or No
Stroke/CVA	Select One: Yes or No
Unplanned ICU Admission	Select One: Yes or No
Unplanned Return to OR	Select One: Yes or No
Osteomyelitis	Select One: Yes or No
Ventilator-Associated Pneumonia	Select One: Yes or No