Small Bowel Perforation after Blunt Abdominal Trauma: Diagnosis and Mortality

Data Dictionary

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Hospital Information

In-Hospital Case Information
HOSPITAL INFORMATION
(Data need to be entered one time only)
HOSPITAL CODE

Definition
A unique de-identifying letter assigned to each hospital individually by the lead site.

Field Values
- A capital alphabet letter.

Additional Information
- This field is required.

ACS TRAUMA CENTER DESIGNATION

Definition
American College of Surgeons (ACS) ranking for the Trauma Center where the patient received definitive treatment

Field Values
I II III Undesignated

Additional Information
- This field is required.

STATE TRAUMA CENTER LEVEL

Definition
State Trauma Center status where the patient received definitive treatment

Field Values
I II III IV V Unspecified

Additional Information
- This field only applies to hospitals in USA.

NUMBER OF ADULT TRAUMA ADMISSIONS YEARLY

Definition
The number of adult (18 years+) trauma cases admitted as inpatients to the hospital yearly (this includes 23-hour observation)

Field Values
<1000 1001-1500 1501-2000 2001-2500
2501-3000 3001 or greater

Additional Information
- This field is required.
NUMBER OF ADULT TRAUMA ACTIVATIONS YEARLY

Definition
The number of adult trauma alerts activated in the hospital yearly

Field Values
<1000  1001-1500  1501-2000  2001-2500
2501-3000  3001- or greater

Additional Information
• This field is required.

NUMBER OF ADULT BLUNT TRAUMA ADMISSIONS YEARLY

Definition
The number of adult blunt trauma cases admitted to the hospital yearly

Field Values
• Numerical Value.

Additional Information
• This field is required.

NUMBER OF ABDOMINAL CT SCANS FOR BLUNT TRAUMA YEARLY

Definition
The number of adult blunt trauma cases that have an abdominal CT performed in the ED yearly

Field Values
• Numerical Value.

Additional Information
• This field is required.

HOSPITAL PROTOCOL FOR A 2ND CT SCAN

Definition
Is there a hospital policy or protocol for a 2nd Abdominal CT scan in blunt trauma?

Field Values
YES  NO

Additional Information
• This field is required.
IN-HOSPITAL CASE INFORMATION
ASSIGNED PATIENT ID

Definition
A unique de-identifying number assigned to subjects by each site

Field Values
Numerical Value

Additional Information
• The value will be automatically generated.

AGE

Definition
The patient’s age at the time of injury.

Field Values
• Relevant value for data element (drop-down list from 18 to 89, and 999)

Additional Information
• Collected as a whole number in years only.
• An alert window will pop-up if the age was less than 18 years (exclusion criterion)
• Enter ‘999’ if patient’s age was more than 89 years.
• This field is required.

Data Source Hierarchy
1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses’ Notes

ICD CODE FOR SMALL BOWEL PERFORATION

Definition
Did the patient have an ICD-9-CM code of 863.20 assigned?

Field Values
Yes No

Additional Information
• If [No], will need to enter assigned ID of matched case (if applicable), or will be included in non-therapeutic laparotomy or laparoscopy group.
• This field is required.

Data Source Hierarchy
1. Operative Notes
2. Problems List
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Discharge Notes

ASSIGNED PT ID NUMBER OF MATCHED CASE

**Definition**
If patient is a matched control, enter the Assigned Patient ID of the matched case.

**Field Values**
Numerical value

**Additional Information**
- This field is required if patient is a matched control.

**Data Source Hierarchy**
1. REDCap file of matched case.

CPT code for non-therapeutic laparotomy or laparoscopy

**Definition**
If the patient is not a matched control AND does not have an ICD code of 863.20, did the patient have a CPT code of 49000 (non-therapeutic laparotomy) or 49320 (non-therapeutic laparoscopy)?

**Field Values**
- 49000
- 49320
- Neither code

**Additional Information**
- An alert window will pop-up if you chose [Neither] (exclusion criterion).
- This field is required.

**Data Source Hierarchy**
1. Operative Notes
2. Problems List
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Discharge Notes

DID THE PATIENT HAD A DOUDENAL INJURY?

**Definition**
Did the patient have any duodenal perforation during this encounter?

**Field Values**
- Yes
- No

**Additional Information**
- An alert window will pop-up if you chose [Yes] (exclusion criterion).
- This field is required.

**Data Source Hierarchy**
1. Operative Notes
2. Problems List
MECHANISM OF INJURY

Definition
The mechanism (or external factor) that caused the injury event.

Field Values
- Blunt
- Penetrating

MVC (Motor Vehicle Collision)
MCC (Motorcycle Crash)

Auto vs. Pedestrian
Sports

Fall
Other

Assault

Additional Information
- You can either choose blunt or penetrating mode.
- An alert window will pop-up if you chose [Penetrating] (exclusion criterion).
- The value should describe the main reason a patient is admitted to the hospital.
- The value "Other" should only be used if the injury does not fit into one of the listed categories.
- If the patient suffered more than one injury mechanism, chose the mechanism most closely associated with the reason for the abdominal injury.
- The maximum number of choices that may be reported for an individual patient is 1.
- This field is required.

Data Source Hierarchy
1. EMS Run Sheet
2. Triage Form / Trauma Flow Sheet
3. Billing Sheet / Medical Records Coding Summary Sheet
4. ED Nurses’ Notes
5. ER and ICU Records
6. Physician History and Physical
AIS HEAD

**Definition**
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the head.

**Field Values**
- Numerical Value (limited to integers 1-6)

**Additional Information**
- An alert window will pop-up if it was >2 (exclusion criterion).

**Data Source Hierarchy**
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records

AIS FACE

**Definition**
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the face.

**Field Values**
- Numerical Value (limited to integers 1-6)

**Additional Information**
- An alert window will pop-up if it was >2 (exclusion criterion).

**Data Source Hierarchy**
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records
AIS NECK

**Definition**
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the neck.

**Field Values**
Numerical Value (limited to integers 1-6)

**Additional Information**
- An alert window will pop-up if it was >2 (exclusion criterion).

**Data Source Hierarchy**
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records

AIS THORAX

**Definition**
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the chest.

**Field Values**
Numerical Value (limited to integers 1-6)

**Additional Information**
An alert window will pop-up if it was >2 (exclusion criterion).

**Data Source Hierarchy**
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records
AIS ABDOMEN

Definition
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the abdomen OTHER THAN THE SMALL BOWEL PERFORATION.

Field Values
Numerical Value (limited to integers 1-6)

Additional Information
• An alert window will pop-up if it was >2 (exclusion criterion).

Data Source Hierarchy
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records

AIS SPINE

Definition
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the spine.

Field Values
Numerical Value (limited to integers 1-6)

Additional Information
• An alert window will pop-up if it was >2 (exclusion criterion).

Data Source Hierarchy
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records
AIS UPPER EXTREMITY

**Definition**
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the upper extremity.

**Field Values**
Numerical Value

**Additional Information**
An alert window will pop-up if it was >2 (exclusion criterion).

**Data Source Hierarchy**
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records

AIS LOWER EXTREMITY

**Definition**
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to the lower extremity.

**Field Values**
Numerical Value

**Additional Information**
- An alert window will pop-up if it was >2 (exclusion criterion).

**Data Source Hierarchy**
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records
AIS UNSPECIFIED

Definition
The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries to other areas.

Field Values
Numerical Value

Additional Information
An alert window will pop-up if it was >2 (exclusion criterion).

Data Source Hierarchy
1. Trauma Registry
2. Hospital Discharge Summary
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Trauma Flow Sheet
5. Physician History and Physical
6. Radiology Reports
7. ER and ICU Records

WAS THE PATIENT A TRANSFER?

Definition
Had the patient been received initially by another hospital and transferred to yours for definitive treatment?

Field Values
Yes No

Additional Information
• If the patient was a transfer, new fields will pop-up (conditional).
• This field is required.

Data Source Hierarchy
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary
PRE-TRANSFER ACS TRAUMA CENTER DESIGNATION

Definition
American College of Surgeons (ACS) ranking for the Trauma Center where the patient received definitive treatment

Field Values
I  II  III  Undesignated

Additional Information
- This field is required.
- This field is conditional.

PRE-TRANSFER STATE TRAUMA CENTER LEVEL

Definition
State Trauma Center status where the patient received definitive treatment

Field Values
I  II  III  IV  V  Unspecified

Additional Information
- This field only applies to hospitals in USA.
- This field is conditional.

PRE-TRANSFER ADMIT TIME

Definition
The time the patient arrived to the ED at the initial trauma center.

Field Values
- Relevant value for data element (00:00 to 23:59).

Additional Information
- This field in conditional.
- Collected as HH:MM using military time (00:00 = 12 am = midnight).
- This field is required.

Data Source Hierarchy
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary
PRE-TRANSFER ADMISSION PHYSICAL EXAMINATION FINDINGS

Definition
Findings of physical examination done in the Trauma Center where the patient initially was received

Field Values
Abdominal Tenderness
Abdominal Distention
Peritoneal Signs

Additional Information
- This field is conditional.
- Multiple selections are enabled.
- Check all relevant boxes

Data Source Hierarchy
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary

PRE-TRANSFER ADMISSION SYSTOLIC BLOOD PRESSURE

Definition
Initial systolic blood pressure recorded at the Trauma Center where the patient initially was received

Field Values
Numerical Value (0 to 399).

Additional Information
- This field is conditional.
- Units are mmHg.

Data Source Hierarchy
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary
PRE-TRANSFER ADMISSION DIASTOLIC BLOOD PRESSURE

**Definition**
Initial diastolic blood pressure recorded at the Trauma Center where the patient initially was received

**Field Values**
Numerical Value (0 to 199).

**Additional Information**
- This field is **conditional**.
- Units are mmHg.

**Data Source Hierarchy**
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary

PRE-TRANSFER ADMISSION HEART RATE

**Definition**
Initial heart rate recorded at the Trauma Center where the patient initially was received

**Field Values**
Numerical Value (0 to 250).

**Additional Information**
- This field is **conditional**.
- Units are beats per minute.

**Data Source Hierarchy**
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary
PRE-TRANSFER ADMISSION TEMPERATURE

**Definition**
Initial patient’s temperature recorded at the Trauma Center where the patient initially was received

**Field Values**
Numerical Value (29 °C to 42 °C).

**Additional Information**
- This field is *conditional*.
- Units are Celsius.

**Data Source Hierarchy**
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary

PRE-TRANSFER ADMISSION RESPIRATORY RATE

**Definition**
Initial respiratory rate recorded at the Trauma Center where the patient initially was received

**Field Values**
Numerical Value (0 to 30).

**Additional Information**
- This field is *conditional*.
- Units are breaths per minute.

**Data Source Hierarchy**
1. Transfer notes
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary
GENDER

Definition
The patient’s sex.

Field Values
Male Female

Additional Information
• Patients who have undergone a surgical and/or hormonal sex reassignment should be coded using the current assignment.

Data Source Hierarchy
1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. EMS Run Sheet
4. Triage Form / Trauma Flow Sheet
5. ED Nurses’ Notes

RACE

Definition
The patient’s race.

Field Values
White Native American
African-American Pacific Islander
Asian Mixed Race
Other Unknown

Additional Information
• If more than one race listed, please choose ‘Mixed race’.

Data Source Hierarchy
1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Triage Form / Trauma Flow Sheet
4. EMS Run Sheet
5. ED Nurses’ Notes
ETHNICITY

Definition
The patient's ethnicity.

Field Values
Hispanic  Non-Hispanic  Unknown

Additional Information
• N/A

Data Source Hierarchy
1. ED Admission Form
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Triage Form / Trauma Flow Sheet
4. EMS Run Sheet
5. ED Nurses’ Notes

PAYER STATUS

Definition
The patient’s payer status and insurance type.

Field Values
• Private/commercial/HMO
• Medicare
• Medicaid
• Military (active duty/retired/dependent/VA)
• Worker’s Compensation
• Uninsured/self-pay
• Other (specify:______________________________)

Additional Information
• N/A

Data Source Hierarchy
1. Billing Sheet / Medical Records Coding Summary Sheet
MEDICAL HISTORY

Definition
The patient's medical history.

Field Values
ICD Code

Additional Information
- List all ICD codes for this admission.

Data Source Hierarchy
1. ED Admission Form
2. EMS Run Sheet
3. ED Nurses’ Notes

ADMISSION DAY

Definition
The day the patient arrived to the ED/hospital where the patient had definitive treatment.

Field Values
0 1

Additional Information
- If the patient was brought directly to the ED, enter ‘Day 0’. If patient was transferred from another hospital, enter ‘Day 0’ if the patient was received before midnight the day of injury, or enter ‘Day 1’ if the patient was received after midnight.
- This field is required.

Data Source Hierarchy
1. Transfer notes
2. Triage Form / Trauma Flow Sheet
3. ED Record
4. Hospital Discharge Summary
ADMISSION TIME

Definition
The time the patient arrived to the ED/hospital where the patient had definitive treatment.

Field Values
- Relevant value for data element (00:00 to 23:59).

Additional Information
- If the patient was brought to the ED, enter time patient arrived at ED. If patient was directly admitted to the hospital, enter time patient was admitted to the hospital.
- Collected as HH:MM using military time (00:00 = 12 am = midnight).
- This field is required.

Data Source Hierarchy
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary

ISS

Definition
The Injury Severity Score (ISS) that reflects the patient’s injuries.

Field Values
- Total ISS value for the constellation of injuries (1 to 75).

Additional Information
- This field is required.
- Entered as whole number.

Data Source Hierarchy
1. Hospital Discharge Summary
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Trauma Flow Sheet
4. Physician History and Physical
5. ER and ICU Records
ADMISSION PHYSICAL EXAMINATION FINDINGS

Definition
Findings of physical examination done in the Trauma Center where the patient had definitive treatment

Field Values
- Abdominal Tenderness
- Abdominal Distention
- Peritoneal Signs

Additional Information
- This field is required.
- Multiple selections are enabled.
- Check all relevant boxes

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

ADMISSION SYSTOLIC BLOOD PRESSURE

Definition
Initial systolic blood pressure recorded at the Trauma Center where the patient had definitive treatment

Field Values
- Numerical Value (0 to 399)

Additional Information
- This field is required.
- Units are mmHg.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
ADMISSION DIASTOLIC BLOOD PRESSURE

Definition
Initial diastolic blood pressure recorded at the Trauma Center where the patient had definitive treatment

Field Values
Numerical Value (0 to 199).

Additional Information
- This field is required.
- Units are mmHg.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

ADMISSION HEART RATE

Definition
Initial heart rate recorded at the Trauma Center where the patient had definitive treatment

Field Values
Numerical Value (0 to 250).

Additional Information
- This field is required.
- Units are beats per minute.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
ADMISSION TEMPERATURE

Definition
Initial patient's temperature recorded at the Trauma Center where the patient had definitive treatment

Field Values
Numerical Value (29 °C to 42 °C).

Additional Information
- This field is required.
- Units are Celsius.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

ADMISSION RESPIRATORY RATE

Definition
Initial respiratory rate recorded at the Trauma Center where the patient had definitive treatment

Field Values
Numerical Value (0 to 30).

Additional Information
- This field is required.
- Units are breaths per minute.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
NUMBER OF PRE-OPERATIVE CT SCANS

Definition
Total number of relevant Abdominal CT scans done on patient pre-operatively and/or within the first 24 hours of admission (initial admission if it was a transfer)

Field Values

1 2 3

Additional Information
- This field is required.
- If the patient had more than one CT, new fields will pop-up (conditional).

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Radiology Reports
6. Physician History and Physical

FIRST CT SCAN DAY

Definition
The day the patient had the 1st abdominal CT scan for this injury in the ED/hospital where the patient had definitive treatment.

Field Values

0 1

Additional Information
- Enter ‘Day 0’ if the CT was done before midnight the day of injury, or enter ‘Day 1’ if the CT was done after midnight.
- This field is required.

Data Source Hierarchy
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Hospital Discharge Summary
FIRST CT SCAN TIME

Definition
The time the patient had the 1st abdominal CT scan for this injury in the ED/hospital where the patient had definitive treatment.

Field Values
- Relevant value for data element (00:00 to 23:59).

Additional Information
- Collected as HH:MM using military time (00:00 = 12 am = midnight).
- This field is required.

Data Source Hierarchy
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary

HOW MANY DETECTORS DOES THE FIRST CT SCANNER HAVE

Definition
The number of detectors in the multi-detector computed tomography scanner used for this patient

Field Values
1. 4
2. 8
3. 16
4. 32
5. 64
6. >64

Additional Information
- This field is required.

Data Source Hierarchy
1. Dictated radiologist report.
2. Hospital radiology department log.
FIRST CT SCAN FINDINGS

**Definition**
Radiological findings recorded on the 1st abdominal CT scan for this injury.

**Field Values**
- Free Fluid
- Free Air
- Bowel Wall Thickening
- Mesenteric Stranding
- Contrast Extravasation
- Solid Organ Injury
- Retroperitoneal Blood
- Chance Fracture
- No Abnormalities
- Others

**Additional Information**
- This field is required.

**Data Source Hierarchy**
1. Radiology Reports
2. ER and ICU Records
3. Trauma Flow Sheet
4. Physician History and Physical
5. Hospital Discharge Summary
6. Billing Sheet / Medical Records Coding Summary Sheet

SECOND CT SCAN DAY

**Definition**
The day the patient had 2ND abdominal CT scan done either preoperatively or within 24 hours for patients who did not have abdominal surgery.

**Field Values**
- 0
- 1

**Additional Information**
- Enter ‘Day 0’ if the CT was done before midnight the day of injury, or enter ‘Day 1’ if the CT was done after midnight.
- This field is required.

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Hospital Discharge Summary
SECOND CT SCAN TIME

**Definition**
The time the patient had the 2\textsuperscript{ND} abdominal CT scan done either preoperatively or within 24 hours for patients who did not have abdominal surgery

**Field Values**
- Relevant value for data element (00:00 to 23:59).

**Additional Information**
- Collected as HH:MM using military time (00:00 = 12 am = midnight).
- This field is required.

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Billing Sheet / Medical Records Coding Summary Sheet
4. Hospital Discharge Summary

HOW MANY DETECTORS DOES THE SECOND CT SCANNER HAVE

**Definition**
The number of detectors in the multi-detector computed tomography scanner used for this patient

**Field Values**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>64</td>
</tr>
<tr>
<td>8</td>
<td>&gt;64</td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Information**
- This field is required.

**Data Source Hierarchy**
1. Dictated radiologist report.
2. Hospital radiology department log.
SECOND CT SCAN FINDINGS

Definition
Radiological findings were recorded on the 2nd abdominal CT scan for this injury.

Field Values
Free Fluid
Free Air
Bowel Wall Thickening
Mesenteric Stranding
Contrast Extravasation
Solid Organ Injury
Retroperitoneal Blood
Chance Fracture
No Abnormalities
Others

Additional Information
- This field is required.

Data Source Hierarchy
1. Radiology Reports
2. ER and ICU Records
3. Trauma Flow Sheet
4. Physician History and Physical
5. Hospital Discharge Summary
6. Billing Sheet / Medical Records Coding Summary Sheet

DIAGNOSTIC TESTS DONE OTHER THAN CT SCAN

Definition
Diagnostic tests and procedures done other than abdominal CT scan

Field Values
Chest x-ray
Abdominal ultrasound
Abdominal x-ray
Diagnostic peritoneal lavage

Additional Information
- Multiple selections are enabled.
- Check all relevant boxes

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
DAY OF SURGERY

Definition
The day the patient had the initial abdominal surgery in the hospital where the patient had definitive treatment.

Field Values

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Other</th>
<th>No Surgery</th>
</tr>
</thead>
</table>

Additional Information
- Enter ‘Day 0’ if the surgery was done before midnight the day of injury, enter ‘Day 1’ if the surgery was done after midnight, or enter the chronological day in the field of ‘Other’
- This field is required.
- Some fields will change to gray if ‘No Surgery’ chosen

Data Source Hierarchy
1. Operative Report
2. ER and ICU Records
3. Trauma Flow Sheet
4. Physician History and Physical
5. Hospital Discharge Summary
6. Billing Sheet / Medical Records Coding Summary Sheet

TIME OF SURGERY

Definition
The time the patient had the initial abdominal surgery in the hospital where the patient had definitive treatment.

Field Values
- Relevant value for data element (00:00 to 23:59).

Additional Information
- Collected as HH:MM using military time (00:00 = 12 am = midnight).
- This field is required.
- This field is conditional.

Data Source Hierarchy
1. Operative Report
2. Trauma Flow Sheet
3. Physician History and Physical
4. Hospital Discharge Summary
5. Billing Sheet / Medical Records Coding Summary Sheet
PRE-OPERATIVE PHYSICAL EXAMINATION FINDINGS

**Definition**
Findings of physical examination in the immediate pre-operative period.

**Field Values**
- Abdominal Tenderness
- Abdominal Distention
- Peritoneal Signs

**Additional Information**
- This field in **required**.
- This field in **conditional**.
- Multiple selections are enabled.
- Check all relevant boxes

**Data Source Hierarchy**
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

PRE-OPERATIVE SYSTOLIC BLOOD PRESSURE

**Definition**
Systolic blood pressure recorded in the immediate pre-operative period.

**Field Values**
- Numerical Value (0 to 399).

**Additional Information**
- This field in **required**.
- This field in **conditional**.
- Units are mmHg.

**Data Source Hierarchy**
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
PRE-OPERATIVE DIASTOLIC BLOOD PRESSURE

Definition
Diastolic blood pressure recorded in the immediate pre-operative period.

Field Values
Numerical Value (0 to 199).

Additional Information
- This field is required.
- This field is conditional.
- Units are mmHg.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

PRE-OPERATIVE HEART RATE

Definition
Initial heart rate recorded in the immediate pre-operative period.

Field Values
Numerical Value (0 to 250).

Additional Information
- This field is required.
- This field is conditional.
- Units are beats per minute.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
PRE-OPERATIVE TEMPERATURE

**Definition**
Initial patient's temperature recorded in the immediate pre-operative period.

**Field Values**
Numerical Value (29 °C to 42 °C).

**Additional Information**
- This field is required.
- This field is conditional.
- Units are Celsius.

**Data Source Hierarchy**
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

PRE-OPERATIVE RESPIRATORY RATE

**Definition**
Initial respiratory rate recorded in the immediate pre-operative period.

**Field Values**
Numerical Value (0 to 30).

**Additional Information**
- This field is required.
- This field is conditional.
- Units are breaths per minute.

**Data Source Hierarchy**
6. ED Record
7. Billing Sheet / Medical Records Coding Summary Sheet
8. Hospital Discharge Summary
9. ER and ICU Records
10. Physician History and Physical
PRE-OPERATIVE ARTERIAL pH

**Definition**
Arterial pH recorded in the immediate pre-operative period.

**Field Values**
- Relevant value for data element (6.5 – 8.0).

**Additional Information**
- Enter value up to 2 decimal places.
- Try to ensure that the blood gas was arterial before recording the value.
- If no arterial blood gas was done please leave the data element blank – please do not enter 0.

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports

PRE-OPERATIVE BASE DEFICIT

**Definition**
Base deficit recorded in the immediate pre-operative period.

**Field Values**
- Relevant value for data element (-25 to +25).

**Additional Information**
- Only use integers for this data element.
- Units are mEq/L.
- Try to ensure that the blood gas was arterial before recording the value.
- If no arterial blood gas was done please leave the data element blank – please do not enter 0.
- If the patient had a base deficit, include a negative (-) sign prior to the integer. If the patient had a base excess include (+) sign prior to the integer.

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports
PRE-OPERATIVE LACTATE

**Definition**
Lactate level recorded in the immediate pre-operative period.

**Field Values**
- Relevant value for data element (0 – 100)

**Additional Information**
- Enter value up to 1 decimal place.
- Units are mmol/L.
- If no Lactate was done leave the data element blank – please do not enter 0.

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports

PRE-OPERATIVE HCT

**Definition**
Hematocrit recorded in the immediate pre-operative period.

**Field Values**
- Relevant value for data element (5-65)

**Additional Information**
- Only use integers for this data element.
- Units are %.

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports
PRE-OPERATIVE HEMOGLOBIN

Definition
Hemoglobin level recorded in the immediate pre-operative period.

Field Values
- Relevant value for data element (3.0 to 20.0).

Additional Information
- Enter up to 1 decimal place.
- Units are g/dl

Data Source Hierarchy
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports

PRE-OPERATIVE WBC COUNT

Definition
White Blood Cell count recorded in the immediate pre-operative period.

Field Values
- Relevant value for data element (100 to 100,000).

Additional Information
- Only use integers for this data element
- Units are in micro-liter (mcL).

Data Source Hierarchy
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports
PRE-OPERATIVE SERUM AMYLASE

**Definition**
Serum Amylase level recorded in the immediate pre-operative period.

**Field Values**
- Relevant value for data element (0 -10,000).

**Additional Information**
- Only use integers for this data element.
- Units are units per liter (IU/L).

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports

PRE-OPERATIVE SERUM LIPASE

**Definition**
Serum Lipase level recorded in the immediate pre-operative period.

**Field Values**
- Relevant value for data element (0 -10,000).

**Additional Information**
- Only use integers for this data element.
- Units are units per liter (IU/L).

**Data Source Hierarchy**
1. Triage Form / Trauma Flow Sheet
2. ED Record
3. Laboratory reports

INDICATION FOR SURGERY

**Definition**
The most important factors that led to the decision to perform surgery.

**Field Values**
- Free fluid without solid organ injury on CT scan
- Free air on CT scan
- Mesenteric hematoma/stranding on CT scan
- Bowel wall thickening on CT scan
Abdominal pain
Deterioration of Vital Signs
Other (specify)

Peritoneal Signs
Sepsis

Additional Information
- Multiple selections are enabled.
- Check all relevant boxes

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

COMPLICATIONS

Definition
Complications that took place during the 30 days following surgery for bowel injury (or the 30 days following admission for patients without bowel injury).

Field Values
Wound Infection
Systemic Sepsis
ARDS
Venous Thrombo-embolism
Intra-abdominal Abscess
Pneumonia
Acute Kidney Injury

Additional Information
- Multiple selections are enabled.
- Check all relevant boxes

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical

READMISSION

Definition
Has the patient been readmitted to the hospital for a related cause with 30 days after discharge?
Field Values
YES
NO

Additional Information
- Readmission cause can be classified as related if it happened as a result of the trauma, surgery, under-management, or missed injuries.

Data Source Hierarchy
1. ED Record
2. Billing Sheet / Medical Records Coding Summary Sheet
3. Hospital Discharge Summary
4. ER and ICU Records
5. Physician History and Physical
DAY OF DISCHARGE

Definition
The day the patient was discharged from the hospital where the patient had definitive treatment.

Field Values
Numerical Value (whole numbers)

Additional Information
- Enter 'Day 0' if the discharge was before midnight the day of injury, enter 'Day 1' if the discharge was done the next day, etc.
- This field is required.

Data Source Hierarchy
1. ER and ICU Records
2. Trauma Flow Sheet
3. Physician History and Physical
4. Hospital Discharge Summary
5. Billing Sheet / Medical Records Coding Summary Sheet

DISCHARGE & DISPOSITION

Definition
Status of the patient’s discharge or disposition

Field Values
Home
Nursing Home/Skilled Nursing Facility
Hospice Facility
Inpatient Rehabilitation Facility
Against Medical Advice
Death attributed to SBP
Death not attributed to SBP

Additional Information
- The maximum number of choices that may be reported for an individual patient is 1.
- Death is classified as attributed to a small bowel perforation (SBP) if a patient met all three of the following criteria: 1) a small bowel perforation was verified on operation/autopsy, 2) death was confirmed as involving peritoneal sepsis, and 3) the death was not directly attributable to or exacerbated by another injury or illness

Data Source Hierarchy
1. Billing Sheet / Medical Records Coding Summary Sheet
2. Hospital Discharge Summary
3. Physician History and Physical