M·TQIP

2017 Data Dictionary

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PATIENT INCLUSION CRITERIA

To ensure consistent data collection across States into the National Trauma Data Standard, a trauma patient is defined as a patient sustaining a traumatic injury and meeting the following criteria:

At least one of the following injury diagnostic codes defined as follows:

International Classification of Diseases, Tenth Revision (ICD-10-CM):

S00-S99 with 7th character modifiers of A, B, or C ONLY. *(Injuries to specific body parts – initial encounter)*
T07 *(unspecified multiple injuries)*
T14 *(injury of unspecified body region)*
T20-T28 with 7th character modifier of A ONLY *(burns by specific body parts – initial encounter)*
T30-T32 *(burn by TBSA percentages)*
T79.A1-T79.A9 with 7th character modifier of A ONLY *(Traumatic Compartment Syndrome – initial encounter)*

Excluding the following isolated injuries:

ICD-10-CM:

S00 *(Superficial injuries of the head)*
S10 *(Superficial injuries of the neck)*
S20 *(Superficial injuries of the thorax)*
S30 *(Superficial injuries of the abdomen, pelvis, lower back and external genitals)*
S40 *(Superficial injuries of shoulder and upper arm)*
S50 *(Superficial injuries of elbow and forearm)*
S60 *(Superficial injuries of wrist, hand and fingers)*
S70 *(Superficial injuries of hip and thigh)*
S80 *(Superficial injuries of knee and lower leg)*
S90 *(Superficial injuries of ankle, foot and toes)*

Late effect codes, which are represented using the same range of injury diagnosis codes but with the 7th digit modifier code of D through S, are also excluded.

AND MUST INCLUDE ONE OF THE FOLLOWING IN ADDITION TO (ICD-10-CM S00-S99, T07, T14, T20-T28, T30-T-32 and T79.A1-T79.A9):

- Hospital admission as defined by your trauma registry inclusion criteria; OR
- Patient transfer via EMS transport (including air ambulance) from one hospital to another hospital; OR
- Death resulting from the traumatic injury (independent of hospital admission or hospital transfer status)

Patients entered into the trauma registry will then be selected for analysis using TQIP and/or MTQIP inclusion and exclusion criteria.

Def. Source: NTDS

CASE NUMBER

Registry number from commercial registry software. This number is automatically assigned by the registry program. We will use only the initial admission (xxxxxx.000) record.

Def. Source:

Data Base Column Name: TRAUMA_NUM
Type of Field: Numeric
Length: 10

Report: #1-6

TRAUMA CENTER

A two-letter code that identifies each trauma center. Assigned by the data coordinating center.

OW = Beaumont Hospital - Dearborn
BF = Beaumont Hospital - Farmington Hills
WB = Beaumont Hospital - Royal Oak
OS = Beaumont Hospital - Trenton
BO = Borgess Health
BM = Bronson Methodist Hospital
CO = Covenant HealthCare
DR = Detroit Receiving Hospital
GH = Genesys Health System
HF = Henry Ford Hospital
HM = Henry Ford Macomb Hospital
HU = Hurley Medical Center
MG = UP Health System Marquette
MC = McLaren Macomb (Mount Clemens)
ML = McLaren Lapeer Regional Medical Center
PO = McLaren Oakland (Pontiac)
MI = MidMichigan Medical Center - Midland
MU = Munson Medical Center
VH = Providence Hospital - Southfield
MM = Mercy Health Saint Mary's
SG = Sinai-Grace Hospital
SP = Sparrow Hospital
SH = Spectrum Health
JO = St. John Providence Health System
SJ = St. Joseph Mercy Hospital Ann Arbor
SO = St. Joseph Mercy Oakland
LM = St. Mary Mercy Livonia Hospital
SM = St. Mary's of Michigan
UM = University of Michigan Health System

Def. Source: MTQIP

Report: 1,2,3,4,5,6,7,8

DEMOGRAPHIC INFORMATION

AGE
The patient's age at the time of injury (best approximation).

• Used to calculate patient age in hours, days, months, or years.
• If Date of Birth is "Not Known/Not Recorded", complete variables: Age and Age Units.
• If Date of Birth equals ED/Hospital Arrival Date, then the Age and Age Units variables must be completed.
• Must also complete variable: Age Units.
• If an age is unable to be found after referencing all available documentation including the medical examiner report, then enter an age of 50.

Def. Source: NTDS

Data Base Column Name: CALCULATED_AGE
Type of Field: Numeric
Length: 5

Report: #1

RACE
The patient's race.

• Patient race should be based upon self-report or identified by a family member.

• Select all that apply.

(1) Asian, (A)
(2) Native Hawaiian or Other Pacific Islander (P)
(3) Other Race (O)
(4) American Indian (I)
(5) Black or African American (B)
(6) White (W)

Def. Source: NTDS, US Census Bureau 2010

Data Base Column Name: RACE, RACE2, RACE3, RACE4, RACE5, RACE6
Type of Field: Character
Length: 2

Report: #1

ETHNICITY
The patient's ethnicity.

• Patient ethnicity should be based upon self-report or identified by a family member.
• The maximum number of ethnicities that may be reported for an individual patient is 1.

(1) Hispanic or Latino
(2) Not Hispanic or Latino

Def. Source: NTDS, US Census Bureau 2010

Data Base Column Name: ETHNICITY
Type of Field: Numeric
Length: 1

Report: #1

SEX
The patient's sex.

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

(1) Male (M)
(2) Female (F)

Def. Source: NTDS

Data Base Column Name: SEX
Type of Field: Character
Length: 1

Report: #1

INJURY INFORMATION

INJURY INCIDENT DATE
The date the injury occurred.

• Collected as YYYY-MM-DD.
• Estimates of date of injury should be based upon report by patient, witness, family, or health care provider. Other proxy measures (e.g., 911 call times) should not be used.

Def. Source: NTDS

Data Base Column Name: INJ_DT
Type of Field: Date (MM/DD/YYYY Format)
Length: 8

Report: #1

INJURY INCIDENT TIME
The time the injury occurred.

- Collected as HH:MM military time.
- Estimates of time of injury should be based upon report by patient, witness, family, or health care provider. Other proxy measures (e.g., 911 call times) should not be used.

Def. Source: NTDS

Data Base Column Name: INJ_TM
Type of Field: Character (Time Format)
Length: 5

Report: #1

ICD-10 PRIMARY EXTERNAL CAUSE CODE
External cause code used to describe the mechanism (or external factor) that caused the injury event.

- Relevant ICD-10-CM code value for injury event.
- The primary external cause code should describe the main reason a patient is admitted to the hospital.
- External cause codes are used to auto-generate two calculated fields: Trauma Type (Blunt, Penetrating, Burn) and Intentionality (based upon CDC matrix).
- ICD-10-CM codes will be accepted for this data element. Activity codes should not be reported in this field.

Def. Source: NTDS

Data Base Column Name: INJ_ECODE_ICD10_01
Type of Field: Character (Alphanumeric)
Length: 5

Report: #1

PROTECTIVE DEVICES
Protective devices (safety equipment) in use or worn by the patient at the time of the injury.

- Check all that apply.
- If "Child Restraint" is present, complete variable "Child Specific Restraint."
- If "Airbag" is present, complete variable "Airbag Deployment."
- Evidence of the use of safety equipment may be reported or observed.
- Lap Belt should be used to include those patients that are restrained, but not further specified.
- If chart indicates "3-point-restraint" choose 2 and 10.

(1) None
(2) Lap Belt
(3) Personal Floatation Device
(4) Protective Non-Clothing Gear (e.g., shin guard)
(5) Eye Protection
(6) Child Restraint (booster seat or child car seat)
(7) Helmet (e.g., bicycle, skiing, motorcycle)
(8) Airbag Present

(9) Protective Clothing (e.g., padded leather pants)
(10) Shoulder Belt
(11) Other

Def. Source: NTDS

Data Base Column Name: SAFETY01, SAFETY02, SAFETY03
Type of Field:
Length:

Report: #7

MECHANISM

Enter the mechanism that caused the injury event. Blunt injuries are the result of an external force exerted onto the body. Penetrating injuries result from the puncturing of the skin creating a wound.

(1) Blunt
(2) Penetrating

Def. Source:

Data Base Column Name: INJ_TYPE
Type of Field: Character
Length: 15

Report: #1

PRE-HOSPITAL INFORMATION

TRANSPORT MODE

The mode of transport delivering the patient to your hospital.

(1) Ground Ambulance
(2) Helicopter Ambulance
(3) Fixed-wing Ambulance
(4) Private/Public Vehicle/Walk-in
(5) Police
(6) Other

Def. Source: NTDS

Data Base Column Name: PAT_A_MODE, ITP_MODE (DI ONLY)
Type of Field:
Length:
Null: Registry Default

Report: #1

INTER-FACILITY TRANSFER

Was the patient transferred to your facility from another acute care facility?

- Patients transferred from a private doctor's office, stand-alone ambulatory surgery center, or delivered to your hospital by a non-EMS transport are not considered an inter-facility transfers.
- Outlying facilities purporting to provide emergency care services or utilized to stabilize a patient are considered acute care facilities.

(1) Yes
(2) No

Def. Source: NTDS

Data Base Column Name: HOSPTRF_L
Type of Field: Character
Length: 1

Report: #1

PRE-HOSPITAL CARDIAC ARREST

Indication of whether patient experienced cardiac arrest prior to ED/Hospital arrival.

- A patient who experienced a sudden cessation of cardiac activity. The patient was unresponsive with no normal breathing and no signs of circulation.
- The event must have occurred outside of the reporting hospital, prior to admission at the center in which the registry is maintained. Pre-hospital cardiac arrest could occur at a transferring institution.
- Any component of basic and/or advanced cardiac life support must have been initiated by a health care provider.

(1) Yes
(2) No

Def. Source: NTDS

Data Base Column Name: MTQIP_PRECPR
Type of Field: Character
Length: 1

EMERGENCY DEPARTMENT INFORMATION

ACTIVATION LEVEL

Enter the highest level of activation identified by index hospital activation criteria.

(1) Full
(2) Partial
(3) Consult
(4) No Trauma Activation

Def. Source:

Data Base Column Name: ED_TTA_TYPE, ED_TTA_TYPE_AS_TEXT
Type of Field:
Length: 8

Report: #1

ED/HOSPITAL ARRIVAL DATE

The date the patient arrived to the ED/hospital.

- If the patient was brought to the ED, enter date patient arrived at ED. If patient was directly admitted to the hospital, enter date patient was admitted to the hospital.
- Collected as YYYY-MM-DD.
- Used to auto-generate two additional calculated fields: Total EMS Time: (elapsed time from EMS dispatch to hospital

arrival) and Total Length of Hospital Stay (elapsed time from ED/Hospital Arrival to ED/Hospital Discharge).

Def. Source: NTDS

Data Base Column Name: ED_ARRDT
Type of Field: Date
Length: 8

Report: #1

ED/HOSPITAL ARRIVAL TIME
The time that the patient arrived to the ED/hospital.

- 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 military time.
- Used to auto-generate two additional calculated fields: Total EMS Time (elapsed time from EMS dispatch to hospital arrival) and Total Length of Hospital Stay (elapsed time from ED/Hospital Arrival to ED/Hospital Discharge).

Def. Source: NTDS

Data Base Column Name: ED_ARRTM
Type of Field: Character (Time Format)
Length: 5

Report: #1

INITIAL ED/HOSPITAL SYSTOLIC BLOOD PRESSURE
First recorded systolic blood pressure in the ED/hospital within 30 minutes or less of ED/hospital arrival.

- Please note that first recorded/hospital vitals do not need to be from the same assessment.
- Measurement recorded must be without the assistance of CPR or any type of mechanical chest compression device. For those patients who are receiving CPR or any type of mechanical chest compressions, report the value obtained while compressions are paused.
- If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no BP is ever able to be obtained then capture BP as 0.

Def. Source: NTDS

Data Base Column Name: ED_BP
Type of Field: Numeric
Length: 3

Report: #1

INITIAL ED/HOSPITAL PULSE
First recorded pulse in the ED/hospital (palpated or auscultated) within 30 minutes or less of ED/hospital arrival (expressed as a number per minute).

- Please note that first recorded/hospital vitals do not need to be from the same assessment.
- Measurement recorded must be without the assistance of CPR or any type of mechanical chest compression device. For those patients who are receiving CPR or any type of mechanical chest compressions, report the value obtained while compressions are paused.
- If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no pulse is ever able to be obtained then capture pulse as 0.

Def. Source: NTDS

Data Base Column Name: ED_PULSE
Type of Field: Numeric
Length: 3

Report: #1

INITIAL ED/HOSPITAL TEMPERATURE
First recorded temperature (in degrees Celsius [centigrade]) in the ED/hospital within 30 minutes or less of ED/hospital arrival.

• Please note that first recorded hospital vitals do not need to be from the same assessment.

Def. Source: NTDS

Data Base Column Name: ED_TEMP
Type of Field: Numeric
Length: 5

Report: #1

INITIAL ED/HOSPITAL GCS-EYE
First recorded Glasgow Coma Score (Eye) in the ED/hospital within 30 minutes or less of ED/hospital arrival.

• Used to calculate Overall GCS - ED Score.
• If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "opens eyes spontaneously," an Eye GCS of 4 may be recorded, IF there is no other contradicting documentation.
• Please note that first recorded/hospital vitals do not need to be from the same assessment.
• If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no GCS is ever able to be obtained then capture this GCS variable as 1.

(1) No eye movement when assessed
(2) Opens eyes in response to painful stimulation
(3) Opens eyes in response to verbal stimulation
(4) Opens eyes spontaneously

Def. Source: NTDS

Data Base Column Name: ED_EYE
Type of Field: Numeric
Length: 2

Report: #1

INITIAL ED/HOSPITAL GCS-VERBAL
First recorded Glasgow Coma Score (Verbal) within 30 minutes or less of ED/hospital arrival.

• Used to calculate Overall GCS - ED Score.
• If patient is intubated then the GCS Verbal score is equal to 1.
• If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient is oriented to person place and time," a Verbal GCS of 5 may be recorded, IF there is no other contradicting documentation.
• Please note that first recorded/hospital vitals do not need to be from the same assessment.
• If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no GCS is ever able to be obtained then capture this GCS variable as 1.

(1) No verbal response

(2) Incomprehensible sounds
(3) Inappropriate words
(4) Confused
(5) Oriented

Def. Source: NTDS

Data Base Column Name: ED_VRB
Type of Field: Numeric
Length: 2

Report: #1

INITIAL ED/HOSPITAL GCS-MOTOR
First recorded Glasgow Coma Score (Motor) within 30 minutes or less of ED/hospital arrival.

- Used to calculate Overall GCS – ED Score.
- If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.
- If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no GCS is ever able to be obtained then capture this GCS variable as 1.

(1) No motor response
(2) Extension to pain
(3) Flexion to pain
(4) Withdrawal from pain
(5) Localizing pain
(6) Obeys commands

Def. Source: NTDS

Data Base Column Name: ED_MTR
Type of Field: Numeric
Length: 2

Report: #1

INITIAL ED/HOSPITAL GCS-TOTAL
First recorded Glasgow Coma Score (total) within 30 minutes or less of ED/hospital arrival.

- If a patient does not have a numeric GCS recorded, but there is documentation related to their level of consciousness such as "AAOx3," "awake alert and oriented," or "patient with normal mental status," interpret this as GCS of 15 IF there is no other contradicting documentation.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.
- If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no GCS is ever able to be obtained then capture GCS total as 3.

Def. Source: NTDS

Data Base Column Name: ED_GCS
Type of Field: Numeric
Length: 2

Report: #1

INITIAL ED/HOSPITAL GCS ASSESSMENT QUALIFIERS

Documentation of factors potentially affecting the first assessment of GCS within 30 minutes or less of ED/hospital arrival.

- Identifies treatments given to the patient that may affect the first assessment of GCS. This field does not apply to self-medications the patient may administer (i.e., ETOH, prescriptions, etc.).
- If an intubated patient has recently received an agent that results in neuromuscular blockade such that a motor or eye response is not possible, then the patient should be considered to have an exam that is not reflective of their neurologic status and the chemically paralyzed modifier should be selected.
- Neuromuscular blockade is typically induced following the administration of agent like succinylcholine, mivacurium, rocuronium, (cis)atracurium, vecuronium, or pancuronium. While these are the most common agents, please review what might be typically used in your center so it can be identified in the medical record.
- Each of these agents has a slightly different duration of action, so their effect on the GCS depends on when they were given. For example, succinylcholine's effects last for only 5-10 minutes.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.

S = Patient Chemically Sedated
T = Patient Intubated
TP = Patient Intubated and Chemically Paralyzed
L = Valid GCS: Patient was not sedated, not intubated, and did not have obstruction to eye
V = Unknown
X = Not Available
Z = Inappropriate

Neuromuscular Blockers	
Trade Name	**Generic Name**
Anectine	succinylcholine
Tracrium	atracurium
Mivacron	mivacurium
Nimbex	cisatracurium
Pavulon	pancuronium
Norcuron	vecuronium
Zemuron	rocuronium

Def. Source: NTDS

Data Base Column Name: ED_CALCAQ
Type of Field: Character
Length: 2

Report: #1

INITIAL ED/HOSPITAL HEIGHT
First recorded height upon ED/hospital arrival.

- Recorded in centimeters.
- May be based on family or self-report.
- Please note that first recorded/hospital vitals do not need to be from the same assessment.

Def. Source: NTDS

Data Base Column Name: EDAS_HGT
Type of Field: Numeric
Length:

Report: #1

INITIAL ED/HOSPITAL WEIGHT

First recorded, measured or estimated baseline weight upon ED/Hospital arrival.

• Recorded in kilograms.
• May be based on family or self-report.
• Please note that first recorded/hospital vitals do not need to be from the same assessment.

Def. Source: NTDS

Data Base Column Name: EDAS_WGT
Type of Field: Numeric
Length:

Report: #1

PROVIDER ARRIVAL DATE
The date of ED arrival of the trauma surgeon.

Def. Source:

Data Base Column Name: EDP_A_DATE01
Type of Field: Numeric
Length:
Null: Registry Default

Report: #1

PROVIDER ARRIVAL TIME
The time of ED arrival of the trauma surgeon.

Def. Source:

Data Base Column Name: EDP_A_TIME01
Type of Field: Numeric
Length:
Null: Registry Default

Report: #1

ELAPSED MINUTES FROM ED ARRIVAL TO PROVIDER ARRIVAL
The time in minutes from ED arrival of patient to ED arrival of trauma surgeon for highest level activations. This field is auto calculated by the registry.

Def. Source:

Data Base Column Name: EDP_ELAPSED_MIN01
Type of Field: Numeric
Length:
Null: Registry Default

Report: #1

ED DISCHARGE DISPOSITION
The disposition of the patient at the time of discharge from the ED.

• The null value "Not Applicable" is used if the patient is directly admitted to the hospital.
• If ED Discharge Disposition is 4, 5, 6, 9, 10, 11, then Hospital Discharge Date, Time, and Disposition should be "Not Applicable".

(1) Floor bed (general admission, non-specialty unit bed)

(2) Observation unit (unit that provides < 24 hour stays)
(3) Telemetry/step-down unit (less acuity than ICU)
(4) Home with services
(5) Died/Expired
(6) Other (jail, institutional care, mental health, etc.)
(7) Operating Room
(8) Intensive Care Unit (ICU)
(9) Home without services
(10) Left against medical advice
(11) Transferred to another hospital

Def. Source: NTDS

Data Base Column Name: ED_DISP, ED_DISP_AS_TEXT
Type of Field: Character
Length: 15

Report: #1

ED DISCHARGE DATE
The date the patient was discharged from the ED.

• Collected as YYYY-MM-DD.
• Used to auto-generate an additional calculated field: Total ED Time: (elapsed time from ED admit to ED discharge).
• The null value "Not Applicable" is used if the patient is directly admitted to the hospital.
• If ED Discharge Disposition is 5 Deceased/Expired, then ED Discharge Date is the date of date as indicated on the patient's death certificate.

Def. Source: NTDS

Data Base Column Name: EDD_DATE
Type of Field: Character
Length: 1

Report: #1

ED DISCHARGE TIME
The time the patient was discharged from the ED.

• Collected as HH:MM military time.
• Used to auto-generate an additional calculated field: Total ED Time (elapsed time from ED admit to ED discharge).
• The null value "Not Applicable" is used if the patient is directly admitted to the hospital.
• If ED Discharge Disposition is 5 Deceased/Expired, then ED Discharge Time is the time of death as indicated on the patient's death certificate.

Def. Source: NTDS

Data Base Column Name: EDD_TIME
Type of Field: Character (Time Format)
Length: 5
Validation Range: +/- 1 hour

Report: #1

DIRECT ADMIT
Enter whether patient was directly admitted to MTQIP accepting facility without ED evaluation (i.e. direct admit to floor or ICU).

(1) Yes (Y)
(2) No (N)

Def. Source:

Data Base Column Name: DIR_ADMIT
Type of Field: Character
Length: 1

Report: #1

ARRIVED FROM
The location where patient arrived from.

(1) Scene of Injury (Scene)
(2) Home (Home)
(3) Transfer from referring hospital ED (Refer Hospital)

Def. Source:

Data Base Column Name: ARRIV_FROM
Type of Field: Character
Length: 15

Report: #1

COMPLAINT
The description of event that caused the injury. If a matching description is not available, choose “other”.

(1) Fall (Fall)
(2) Motor Vehicle Collision/Crash (MVC)
(3) Motor Cycle Collision/Crash (MCC)
(4) ATV Collision/Crash (ATV)
(5) Stab with object (Stab)
(6) Gunshot wound (GSW)
(7) Pedestrian vs. Motor Vehicle Collision (MPC)
(8) Bicycle (Injured while riding) (Bicycle)
(9) Other

Def. Source:

Data Base Column Name: CHIEFCOMP
Type of Field: Character
Length: 15

Report: #1

INTUBATION STATUS
The location of first intubation. LMA, King, Combitube and Hi-Lo airways count as an intubation.

(1) Never
(2) Field/Scene/En route
(3) ED
(4) OR
(5) ICU
(6) Other (Floor, Radiology, etc.)

Def. Source: MTQIP

Data Base Column Name: MTQIP_INT_STAT
Type of Field: Custom, Character
Length: 20

Report: #1

CPR

CPR performed in the ED of OSH or MTQIP hospital. Check yes if patient received chest compressions or external/internal cardioversion (defibrillation) in ED. Do not include respiratory arrest requiring rescue breathing or intubation.

(1) ED CPR (CPR Performed in ED)
(2) Not Performed (Not Performed)

Def. Source:

Data Base Column Name: CPR
Type of Field: Character
Length: 15

Report: #1

ALCOHOL SCREEN RESULTS

First recorded blood alcohol concentration (BAC) results within 24 hours after first hospital encounter.
00.

- Collect as X.XX standard lab value (e.g. 0.08).
- Record BAC results within 24 hours after first hospital encounter, at either your facility or the transferring facility.
- The null value "Not Applicable" is used for those patient who were not tested.

Def. Source: NTDS

Data Base Column Name: ETOH
Type of Field: Numeric
Length: 7

Report: #1

ADMIT SERVICE

The service that the patient was admitted to.

(1) Trauma
(2) Neurosurgery
(3) Orthopedics
(4) General Surgery
(5) Pediatric Surgery
(6) Cardiothoracic Surgery
(7) Burn Services
(8) Emergency Medicine
(9) Pediatrics
(10) Anesthesiology
(11) Cardiology
(14) Critical Care
(16) Documentation Recorder
(19) ENT
(20) Family Medicine
(21) GI
(23) Hospitalist

(24) Infectious Disease
(25) Internal Medicine
(27) Nephrology
(28) Neurology
(29) Nurse Practitioner
(30) Nursing
(32) Ob-Gyn
(34) Oncology
(35) Ophthalmology
(36) Oral Surgery
(37) Oromaxillo Facial Service
(38) Ortho-Spine
(43) Plastic Surgery
(45) Pulmonary
(46) Radiology
(48) Respiratory Therapist
(52) Thoracic Surgery
(53) Trauma Resuscitation Nurse
(54) Triage Nurse
(55) Urology
(56) Vascular Surgery
(98) Other Surgical
(99) Other Non-Surgical
? Unknown

Def. Source:

Data Base Column Name: ADMSERVICE
Type of Field: Character
Length: 15

Report: #1

TRAUMA SURGEON

Enter the name and National Provider Identifier (NPI) of the trauma surgeon providing initial care to the patient in the ED or on admission if transferred.

• The NPI can be found on the NPI Registry at https://npiregistry.cms.hhs.gov/registry/provider-search?

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name (Resus Trauma Surgeons): EDP_MD_LNK01, EDP_MD_LNK01_AS_TEXT, EDP_MD_LNK01_NPI
Data Base Column Name (Admitting Trauma Surgeons): TSPHCODE, TSPHCODE_AS_TEXT, TSPHCODE_NPI
Type of Field: Character
Length: 10

Report: #1

HOSPITAL PROCEDURE INFORMATION

OPERATION

Surgical procedure performed in the operating room. Also answer “YES” if the patient had a procedure performed elsewhere that is normally performed in the OR (e.g. bedside tracheostomy or IR PEG placement). Abstractors may use presence of an operative note as guide to determine if the case was an operation for cases performed outside of OR. Do not include simple laceration repairs, closed reductions performed under GETA, or cath lab procedures.

(1) Yes
(2) No

Def. Source: MTQIP

Data Base Column Name: MTQIP_OPERATE
Custom
Type of Field: Yes/No
Length: 1

Report: #1

EMERGENCY OPERATION
An emergency case is commonly performed as soon as possible after the patient sustained an injury. This is identified as emergent by the American Society of Anesthesiologists (ASA) Class. The presence of an "E" after ASA Class indicates an emergent operation. Answer "YES" if the surgeon and/or anesthesiologist report the case as emergent

(1) Yes
(2) No

Def. Source: MTQIP

Data Base Column Name: MTQIP_E_OPERATE
Custom
Type of Field: Yes/No
Length: 1

Report: #1

SERVICE PERFORMING OPERATIVE PROCEDURE
The service performing the operative procedure. Population of this field is only required for operations. Population for procedures (i.e. blood transfusions, CPR, radiology) is at the discretion of the center.

Def. Source:

Data Base Column Name: PR_SVCS_L_AS_TEXT, PR_SVCS_L
Type of Field:
Length:
Null: Registry Default

Report: #5

ELAPSED TIME ED ARRIVAL TO PROCEDURE START

The minutes elapsed between ED arrival and procedure start time. This variable is auto-calculated by the registry from the time entered for an operation and ED arrival.

Def. Source:

Data Base Column Name: PR_A_ELAPSED_MINSSC_L
Type of Field: Numeric
Length:
Null: Registry Default

Report: #5

ICD-10 HOSPITAL PROCEDURES
Operative and selected non-operative procedures conducted during hospital stay. Operative and selected non-operative procedures are those that were essential to the diagnosis, stabilization, or treatment of the patient's specific injuries or

complications. The list of procedures below should be used as a guide to desired non-operative procedures that should be provided to NTDB.

- Major and minor procedure ICD-10-CM procedure codes.
- The maximum number of procedures that may be reported for a patient is 200.
- The null value "Not Applicable" is used if the patient did not have procedures.
- The null value “Not Applicable” used if not coding ICD-10.
- Include only procedures performed at your institution.
- Capture all procedures performed in the operating room.
- Capture all procedures in the ED, ICU, ward, or radiology department that were essential to the diagnosis, stabilization, or treatment of the patient's specific injuries or their complications.
- Procedures with an asterisk have the potential to be performed multiple times during one episode of hospitalization. In this case, capture only the first event. If there is no asterisk, capture each event even if there is more than one.
- Procedures with a double asterisk are required capture.
- Note that the hospital may capture additional procedures.

Diagnostic & Therapeutic Imaging

Computerized tomographic Head *, **

** Required collection of first head/brain CT procedure code, date, and time on all patients who are on anticoagulant therapy or aspirin with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Computerized tomographic Chest *
Computerized tomographic Abdomen *
Computerized tomographic Pelvis *
Diagnostic ultrasound (includes FAST) *
Doppler ultrasound of extremities *
Angiography
Angioembolization
IVC filter (MTQIP process measure)
REBOA (ICD10: 04L03DZ)
Urethrogram

Cardiovascular
Open cardiac massage
CPR

CNS
Insertion of ICP monitor * (MTQIP process measure)
Ventriculostomy * (MTQIP process measure)
Cerebral oxygen monitoring * (MTQIP process measure)

Musculoskeletal
Soft tissue/bony debridements *
Closed reduction of fractures
Skeletal and halo traction
Fasciotomy

Genitourinary
Ureteric catheterization (i.e. Ureteric stent)
Suprapubic cystostomy

Transfusion

Transfusion of red cells * (only capture first 24 hours after hospital arrival)
Transfusion of platelets * (only capture first 24 hours after hospital arrival)
Transfusion of plasma * (only capture first 24 hours after hospital arrival)

Respiratory
Insertion of endotracheal tube * (exclude intubations performed in the OR)
Continuous mechanical ventilation *
Chest tube *
Bronchoscopy *
Tracheostomy

Gastrointestinal
Endoscopy (includes gastroscopy, sigmoidoscopy, colonoscopy)
Gastrostomy/jejunostomy (percutaneous or endoscopic)
Percutaneous (endoscopic) gastrojejunostomy

Other
TPN *, **

Def. Source: NTDS, MTQIP

Data Base Column Name: A_PR_ICD10
Type of Field: Character
Length: 5

Report: #5

HOSPITAL PROCEDURE START DATE
The date operative and selected non-operative procedures were performed.

• Collected as YYYY-MM-DD.

Def. Source: NTDS

Data Base Column Name: A_OPDT
Type of Field: Date
Length: 8

Report: #5 (Include RECORDNO, OPNUMBER, OPDATE, OPTIME, OPCODE, OPSDESCR)

HOSPITAL PROCEDURE START TIME
The time operative and selected non-operative procedures were performed.

• Collected as HH:MM military time.
• Procedure start time is defined as the time the incision was made (or the procedure started).
• If distinct procedures with the same procedure code are performed, their start times must be different.

Def. Source: NTDS

Data Base Column Name: A_OPTM
Type of Field: Character (Time Format)
Length: 5

Report: #5 (Include RECORDNO, OPNUMBER, OPDATE, OPTIME, OPCODE, OPSDESCR)

DIAGNOSES INFORMATION

COMORBID CONDITIONS

Pre-existing co-morbid factors present before patient arrival at the MTQIP ED/hospital.

• The null value "Not Applicable" is used for patients with no known co-morbid conditions.

• Check all that apply.
• Comorbidities should be submitted using numeric or alpha-numeric code under each variable.

Def. Source: NTDS

Data Base Column Name: A_COMORCODE
Type of Field: Character
Length: 4

Report: #4 (Include TRAUMA_NUM, COMORBIDITIES_ITEM, A_COMORCODE, A_COMORCODE_AS_TEXT)

GENERAL

ADVANCED DIRECTIVE LIMITING CARE
The patient had a written request limiting life sustaining therapy, or similar advanced directive, present prior to arrival at your center.

Advanced Directive Limiting Care (NTDS 13)

Def. Source: NTDS

ALCOHOL USE DISORDER
Evidence of chronic use, such as withdrawal episodes or the patient admits to drinking > 2 ounces of hard liquor or > two 12 oz. cans of beer or > two 6 oz. glasses of wine per day in the two weeks prior to admission. If the patient is a binge drinker, divide out the numbers of drinks during the binge by seven days, then apply the definition. Include evidence of chronic use, such as withdrawal episodes. Determine inclusion based on the brief screening tool used at your institution. Exclude isolated elevated blood alcohol level in absence of history of abuse.

Alcohol Use Disorder (NTDS 2)

Def. Source: NSQIP, NTDS

CURRENT SMOKER
A patient who reports smoking cigarettes every day or some days within the last 12 months. Excludes patients who smoke cigars, pipes, use smokeless tobacco (chewing tobacco or snuff), or e-cigarettes.

Current Smoker (NTDS 8)

Def. Source: NSQIP, NTDS

SUBSTANCE ABUSE DISORDER
With particular attention to opioid, sedative, amphetamine, cocaine, diazepam, alprazolam, or lorazepam dependence (excludes ADD/ADHD or chronic pain with medication use as prescribed). Include patients who have a positive drug screen for cannabinoids or report marijuana use (excludes cases where medical marijuana is reported by patient or surrogate).

Drug Use Disorder: Retired 2017 (NTDS 28)
Substance Abuse Disorder (NTDS 36)

Def. Source: NTDS, MTQIP

FUNCTIONALLY DEPENDENT HEALTH STATUS
Pre-injury functional status may be represented by the ability of the patient to complete age appropriate activities of daily living (ADL) including: bathing, feeding, dressing, toileting, and walking. This item is marked YES if the patient, prior to injury, and as a result of cognitive or physical limitations relating to a pre-existing medical condition, was partially dependent or completely dependent upon equipment, devices or another person to complete some or all activities of daily living.

Functionally Dependent Health Status (NTDS 15)

Def. Source: NTDS

PULMONARY

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)
Lung ailment that is characterized by a persistent blockage of airflow from the lungs, present prior to injury. It is not one single disease but an umbrella term used to describe chronic lung diseases that cause limitations in lung airflow. The more familiar terms "chronic bronchitis" and "emphysema" are no longer used, but are now included within the COPD diagnosis and result in any one or more of the following:

1. Functional disability from COPD (e.g., dyspnea, inability to perform activities of daily living [ADLs])
2. Hospitalization in the past for treatment of COPD
3. Requires chronic bronchodilator therapy with oral or inhaled agents
4. A Forced Expiratory Volume in 1 second (FEV1) of <75% of predicted on pulmonary function testing

Do not include patients whose only pulmonary disease is acute asthma, and/or diffuse interstitial fibrosis or sarcoidosis.

Chronic Obstructive Pulmonary Disease (NTDS 23)

Def. Source: WHO, NTDS

HEPATOBILIARY

CIRRHOSIS
Documentation in the medical record of cirrhosis, which might also be referred to as end stage liver disease. If there is documentation of prior or present esophageal or gastric varices, portal hypertension, previous hepatic encephalopathy, or ascites with notation of liver disease, then cirrhosis should be considered present. Cirrhosis should also be considered present if documented by diagnostic imaging studies or at laparotomy/laparoscopy.

Cirrhosis (NTDS 25)

Def. Source: NSQIP, NTDS

CARDIAC

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. To be included, this condition must be noted in the medical record as CHF, congestive heart failure, or pulmonary edema with onset or increasing symptoms 30 days prior to injury.

Common manifestations are:

1. Abnormal limitation in exercise tolerance due to dyspnea or fatigue
2. Orthopnea (dyspnea on lying supine)
3. Paroxysmal nocturnal dyspnea (awakening from sleep with dyspnea)
4. Increased jugular venous pressure
5. Pulmonary rales on physical examination
6. Cardiomegaly
7. Pulmonary vascular engorgement

Congestive Heart Failure (NTDS 7)

Def. Source: NSQIP, NTDS

ANGINA PECTORIS

Chest pain or discomfort due to Coronary Heart Disease, present prior to injury. Usually causes uncomfortable pressure, fullness, squeezing or pain in the center of the chest. Patient may also feel the discomfort in the neck, jaw, shoulder, back or arm. Symptoms may be different in women than men.

History of Angina: Retired 2017 (NTDS 16)
Angina Pectoris (NTDS 32)

Def. Source: AHA, NTDS

MYOCARDIAL INFARCTION
The history of a non-Q-wave or a Q-wave infarction in the six months prior to injury.

History of Myocardial Infarction: Retired 2017 (NTDS 17)
Myocardial Infarction (NTDS 34)

Def. Source: NSQIP, NTDS

PERIPHERAL ARTERIAL DISEASE (PAD)
The narrowing or blockage of the vessels that carry blood from the heart to the legs, present prior to injury. It is primarily caused by the buildup of fatty plaque in the arteries, which is called atherosclerosis. PAD can occur in any blood vessel, but it is more common in the legs than the arms.

History of Peripheral Vascular Disease: Retired 2017 (NTDS 18)
Peripheral Arterial Disease (NTDS 35)

Def. Source: CDC, NTDS

HYPERTENSION REQUIRING MEDICATION
History of a persistent elevation of systolic blood pressure > 140 mm Hg or diastolic blood pressure > 90 mm Hg that requires antihypertensive treatment (e.g., diuretics, beta blockers, angiotensin-converting enzyme (ACE) inhibitors, calcium channel blockers) prior to the time of injury. History of hypertension prior to injury must be documented in the patient's chart.

Hypertension (NTDS 19)

Def. Source: NSQIP, NTDS

RENAL

CHRONIC RENAL FAILURE
Chronic renal failure prior to injury that was requiring periodic peritoneal dialysis, hemodialysis, hemofiltration, or hemodiafiltration, present prior to injury.

Chronic Renal Failure (NTDS 9)

Def. Source: NSQIP, NTDS

CENTRAL NERVOUS SYSTEM

CEREBROVASCULAR ACCIDENT (CVA)
A history prior to injury of a cerebrovascular accident (embolic, thrombotic, or hemorrhagic) with persistent residual motor, sensory, or cognitive dysfunction (e.g., hemiplegia, hemiparesis, aphasia, sensory deficit, impaired memory).

Cerebrovascular Accident (NTDS 10)

Def. Source: NSQIP, NTDS

DEMENTIA
Documentation in the patient’s medical record of dementia including senile or vascular dementia (e.g. Alzheimer’s).

Dementia (NTDS 26)

Def. Source: NTDS

PSYCHIATRIC

ATTENTION DEFICIT DISORDER/ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADD/ADHD)
A disorder involving inattention, hyperactivity, or impulsivity requiring medication for treatment, present prior to ED/Hospital arrival.

Attention deficit disorder/attention deficit hyperactivity disorder (NTDS 30)

Def. Source NTDS

MENTAL/PERSONALITY DISORDER
Documentation of the presence of pre-injury depressive disorder, bipolar disorder, schizophrenia, anxiety/panic disorder, borderline or antisocial personality disorder, and/or adjustment disorder/post-traumatic stress disorder.

• ICD-9 CM Code Range: 295.00-297.9, 300.0-300.09,301.0-301.7, 301.83, 309.81,311, V11.0-V11.2, V11.4-V11.8
• ICD-10 CM Code Range: F20.0 – F29 (Schizophrenia and non-mood psychotic disorders) F30.0 – F39 (Mood [affective] disorders) F44.0 – F44.9 (Dissociative and conversion disorders) F60.0 (Paranoid personality disorder) F60.1 (Schizoid personality disorder) F60.2 (Anti-social personality disorder) F60.3 (Borderline personality disorder) F60.4 (Histrionic personality disorder) F60.5 (Obsessive-compulsive disorder) F60.7 (Dependent personality disorder) F43.10 – F43.12 (PTSD) Z86.51(PH of combat and operational stress reaction) Z86.59 (PH of other mental & behavioral disorders)

Major Psychiatric Illness: Retired 2017 (NTDS 27)
Mental/Personality Disorder (NTDS 33)

Def. Source NTDS

NUTRITIONAL/IMMUNE/OTHER

CONGENITAL ANOMALIES
Documentation of a cardiac, pulmonary, body wall, CNS/spinal, GI, renal, orthopedic, or metabolic congenital anomaly, present prior to injury.

Congenital Anomalies (NTDS 6)

Def. Source: NTDS

DISSEMINATED CANCER
Patients who have cancer that:

1. Has spread to one site or more sites in addition to the primary site.

AND

2. In whom the presence of multiple metastases indicates the cancer is widespread, fulminant, or near terminal. Other terms describing disseminated cancer include "diffuse," "widely metastatic," "widespread," "carcinomatosis". Common sites of metastases include major organs (e.g., brain, lung, liver, meninges, abdomen, peritoneum, pleura, bone).

Report Acute Lymphocytic Leukemia (ALL), Acute Myelogenous Leukemia (AML), and Stage IV Lymphoma under this variable.

Do not report Chronic Lymphocytic Leukemia (CLL), Chronic Myelogenous Leukemia (CML), Stages I through III Lymphoma, or Multiple Myeloma as disseminated cancer.

Example: A patient with a primary breast cancer with positive nodes in the axilla does NOT qualify for this definition. She has spread of the tumor to a site other

than the primary site, but does not have widespread metastases. A patient with primary breast cancer with positive nodes in the axilla AND liver metastases does qualify, because she has both spread of the tumor to the axilla and other major organs.

Example: A patient with colon cancer and no positive nodes or distant metastases does NOT qualify. A patient with colon cancer and several local lymph nodes positive for tumor, but no other evidence of metastatic disease does NOT qualify. A patient with colon cancer with liver metastases and/or peritoneal seeding with tumor does qualify.

Example: A patient with adenocarcinoma of the prostate confined to the capsule does NOT qualify. A patient with prostate cancer that extends through the capsule of the prostate only does NOT qualify. A patient with prostate cancer with bony metastases DOES qualify.

Disseminated Cancer (NTDS 12)

Def. Source: NSQIP, NTDS

STEROID USE
Patients that required the regular administration of oral or parenteral corticosteroid medications (e.g., prednisone, Decadron) in the 30 days prior to injury for a chronic medical condition (e.g., COPD, asthma, rheumatologic disease, rheumatoid arthritis, inflammatory bowel disease). Do not include topical corticosteroids applied to the skin or corticosteroids administered by inhalation or rectally.

Steroid Use (NTDS 24)

Def. Source: NSQIP, NTDS

ANTICOAGULANT THERAPY
Documentation in the medical record of the administration of medication (anticoagulants, antiplatelet agents, thrombin inhibitors, factor Xa inhibitors, thrombolytic agents) that interferes with blood clotting, present prior to injury. Exclude patients who are on chronic Aspirin therapy. Some examples are provided below.

The following is a list of medications that impact the patient's risk for bleeding. Please utilize the associated time frames for discontinuation of medication to determine your answer to this variable.

Trade Names	Generic Names	Subclass	Time Frame
Aggrastat	tirofiban	Antiplatelet	4 hours
Agrylin	anagrelide	Antiplatelet	3 days
Coumadin	warfarin	Anticoagulant	5 days
Effient	prasugrel	Antiplatelet	10 days
Fragmin	dalteparin	Antiplatelet	24 hours
	heparin (IV only)	Anticoagulant	4 hours
Integrilin	eptifibatide	Antiplatelet	2 days
Lovenox	enoxaparin	Anticoagulant	12 hours
Plavix	clopidogrel	Antiplatelet	10 days
Pradaxa	dabigatran etexilate	Direct Thrombin Inhibitor	2 days
Reopro	abciximab	Antiplatelet	9 days
Ticlid	ticlopidine	Antiplatelet	14 days
Xarelto	rivaroxaban	Factor Xa Inhibitor	2 days

Anticoagulant Therapy (NTDS 31)

Def. Source: NTDS

BLEEDING DISORDER
A group of conditions that result when the blood cannot clot properly, present prior to injury (e.g. Hemophilia, von Willenbrand Disease, Factor V Leiden).

Bleeding Disorder (NTDS 4)

Def. Source: NTDS, American Society of Hematology

CHEMOTHERAPY FOR CANCER
A patient who is currently receiving chemotherapy treatment for cancer prior to admission. Chemotherapy may include, but is not restricted to, oral and parenteral treatment with chemotherapeutic agents for malignancies such as colon, breast, lung, head and neck, and gastrointestinal solid tumors as well as lymphatic and hematopoietic malignancies such as lymphomas, leukemia, and multiple myeloma. Do not include if treatment consists solely of hormonal therapy.

Active Chemotherapy (NTDS 5)

Def. Source: NSQIP, NTDS 2012

DIABETES MELLITUS
Diabetes mellitus prior to injury that required exogenous parenteral insulin or an oral hypoglycemic agent. Do not include a patient if diabetes is controlled by diet alone.

Diabetes Mellitus (NTDS 11)

Def. Source: NSQIP, NTDS

PREMATURITY
Documentation of premature birth, a history of bronchopulmonary dysplasia, ventilator support for greater than 7 days after birth, or the diagnosis of cerebral palsy. Premature birth is defined as infants delivered before 37 weeks from the first day of the last menstrual period.

Prematurity (NTDS 21)

Def. Source: NTDS

OTHER
Enter other chronic co-morbid conditions present prior to injury.

Other (NTDS 1)

Def. Source: NTDS

MEDICATIONS

ASPIRIN
Enter “YES” for patients who report use of aspirin for minimum interval of 7 days prior to injury.

D.05 Aspirin

Def. Source: MTQIP

PLAVIX
Enter “YES” for patients who report use of Plavix (clopidogrel) for minimum interval of 10 days prior to injury. Include any similar antiplatelet subclass agent with the mechanism of action via irreversibly binding to the P2Y12 adenosine diphosphate receptors, reducing platelet activation and aggregation, such as Effient (prasugrel), Pletal (cilostazol) or Brilinta (ticagrelor).

D.06 Plavix

Def. Source: MTQIP

WARFARIN

Enter “YES” for patients who report use of Coumadin (warfarin) for a minimum interval of 5 days prior to injury.

D.02 Coumadin Therapy

Def. Source: MTQIP

BETA BLOCKER

Enter “YES” for patients who report use of beta blocker medication for minimum interval of 2 weeks prior to injury.

Beta Blockers	
Trade Names	**Generic Names**
Sectral	acebutolol
Tenormin, Tenoretic	atenolol
Betapace AF	sotalol AF
Kerlone	betaxolol
Zebeta, Ziac	bisoprolol
Brevibloc	esmolol
Bystolic	nebivolol
Coreg	carvedilol
Corgard	nadolol
Inderal, InnoPran XL	propranolol
Trandate	labetalol
Levatol	penbutolol
Lopressor, Toprol XL	metoprolol
	pindolol
	sotalol
Timolide	timolol

Z.02 Beta Blocker

Def. Source: MTQIP

STATIN

Enter “YES” for patients who report use of statin-class medication for minimum interval of 2 weeks prior to injury.

Statins	
Trade Names	**Generic Names**
Advicor, Altoprev, Mevacor	lovastatin
Caduet	atorvastatin
Crestor	rosuvastatin
Lescol	fluvastatin
Lipitor	atorvastatin
Pravachol	pravastatin
Simcor, Vytorin, Zocor	simvastatin

Z.03 Statin

Def. Source: MTQIP

DIRECT THROMBIN INHIBITOR

Enter “YES” for patients who report use of direct thrombin inhibitor class medication for minimum interval of 2 days prior to injury.

Direct Thrombin Inhibitors	
Trade Names	**Generic Names**

Argatroban	argatroban
Pradaxa	dabigatran etexilate

Z.04 Direct Thrombin Inhibitor

Def. Source: MTQIP

FACTOR XA INHIBITOR

Enter “YES” for patients who report use of a factor Xa inhibitor class medication for minimum interval of 2 days prior to injury.

Factor Xa Inhibitors	
Trade Names	**Generic Names**
Arixtra	fondaparinux
Eliquis	apixaban
Xarelto	rivaroxaban
Savaysa	endoxaban

Z.05 Factor Xa Inhibitor

Def. Source: MTQIP

ICD-10 INJURY DIAGNOSES

Diagnoses related to all identified injuries.

- Injury diagnoses as defined by ICD-10-CM code range S00-S99, T07, T14, T20-T28 and T30-T32.
- The maximum number of diagnoses that may be reported for an individual patient is 50.
- ICD-10-CM codes pertaining to other medical conditions (e.g., CVA, MI, co-morbidities, etc.) may also be included in this field.
- Used to auto-generate additional calculated fields: Abbreviated Injury Scale (six body regions) and Injury Severity Score.
- The null value "Not Applicable" is used if not coding ICD-10.

Def. Source: NTDS 2014

Data Base Column Name: A_DCODE
Type of Field: Character
Length: 6

Report: #2 (Include TRAUMA_NUM, DX_ITEM, A_DCODE, A_DCODE_AS_TEXT)

INJURY SEVERITY INFORMATION

AIS SEVERITY

The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries. The required resource is AIS 2005. AIS code field output should be in the XXXXXX.X format with the predot and postdot codes in a single cell.

- The predot code is the 6 digits preceding the decimal point in an associated AIS code.
- The field value (9) “Not Possible to Assign” would be chosen if it is not possible to assign a severity to an injury.

(1) Minor Injury
(2) Moderate Injury
(3) Serious Injury
(4) Severe Injury
(5) Critical Injury
(6) Maximum Injury, Virtually Unsurvivable
(9) Not Possible to Assign

Def. Source: AAAM

Data Base Column Name: A_AISCODES
Type of Field: Character
Length: 8

Report: #3 (Include TRAUMA_NUM, DX_ITEM, A_AISCODES, A_AISCODE_AS_TEXT)

ISS

Calculated injury severity score from the trauma registry. Each injury is assigned an Abbreviated Injury Scale (AIS) score and is allocated to one of six body regions (Head, Face, Chest, Abdomen, Extremities (including Pelvis) and External). The 3 most severely injured body regions have their AIS score squared and added together to produce the ISS. Only the highest AIS score in each body region is used. The ISS takes values from 0 to 75. If an injury is assigned an AIS of 6 (unsurvivable injury), the ISS is automatically assigned to 75.

Def. Source: AAAM

Data Base Column Name: USRAIS_ISS
Type of Field: Numeric
Length: 2

Report: #1

NISS

Calculated new injury severity score from the trauma registry. Each injury is assigned an Abbreviated Injury Scale (AIS) score and is allocated to one of six body regions (Head, Face, Chest, Abdomen, Extremities (including Pelvis) and External). The 3 highest AIS scores regardless of regions are squared and added together to produce the nISS. The nISS takes values from 0 to 75. If an injury is assigned an AIS of 6 (unsurvivable injury), the nISS is automatically assigned to 75.

Def. Source:

Data Base Column Name: NISS
Type of Field: Numeric
Length: 2

Report: #1

MAX HEAD/NECK AIS

Maximum severity value of AIS from 0-6 of individual injuries as defined by Abbreviated Injury Scale for all injuries in the head/neck region. Head or neck injuries include injury to the brain or cervical spine, skull or cervical spine fractures.

Data Base Column Name: USRAIS_HN
Type of Field: Numeric
Length: 2

Report: #1

MAX FACE AIS

Maximum severity value of AIS from 0-6 of individual injuries as defined by Abbreviated Injury Scale for all injuries in the face region. Facial injuries include those involving mouth, ears, nose and facial bones.

Data Base Column Name: USRAIS_FAC
Type of Field: Numeric
Length: 2

Report: #1

MAX CHEST AIS

Maximum severity value of AIS from 0-6 of individual injuries as defined by Abbreviated Injury Scale for all injuries in the chest region. Chest injuries include all lesions to internal organs. Chest injuries also include those to the diaphragm, rib cage, and thoracic spine.

Data Base Column Name: USRAIS_CHS
Type of Field: Numeric
Length: 2

Report: #1

MAX ABDOMEN OR PELVIC CONTENTS AIS

Maximum severity value of AIS from 0-6 of individual injuries as defined by Abbreviated Injury Scale for all injuries in the abdomen region. Abdominal or pelvic contents injuries include all lesions to internal organs. Lumbar spine lesions are included in the abdominal or pelvic region.

Data Base Column Name: USRAIS_ABD
Type of Field: Numeric
Length: 2

Report: #1

MAX EXTREMITY OR PELVIC GIRDLE AIS

Maximum severity value of AIS from 0-6 of individual injuries as defined by Abbreviated Injury Scale for all injuries in the extremity region. Injuries to the extremities or to the pelvic or shoulder girdle include sprains, fractures, dislocations, and amputations, except for the spinal column, skull and rib cage.

Data Base Column Name: USRAIS_EXT
Type of Field: Numeric
Length: 2

Report: #1

MAX EXTERNAL AIS

Maximum severity value of AIS from 0-6 of individual injuries as defined by Abbreviated Injury Scale for all injuries in the external region. External injuries include lacerations, contusions, abrasions, and burns, independent of their locations on the body surface.

Data Base Column Name: USRAIS_ST
Type of Field: Numeric
Length: 2

Report: #1

OUTCOME INFORMATION

TOTAL ICU LENGTH OF STAY

The cumulative amount of time spent in the ICU. Each partial or full day should be measured as one calendar day.

- Recorded in full day increments with any partial calendar day counted as a full calendar day.
- The calculation assumes that the date and time of starting and stopping an ICU episode are recorded in the patient's chart.
- The null value "Not Known/Not Recorded" is used if any dates are missing.
- If patient has multiple ICU episodes on the same calendar day, count that day as one calendar day.
- At no time should the ICU LOS exceed the Hospital LOS.
- The null value "Not Applicable" is used if the patient had no ICU days according to the above definition.
- If the documentation reflects a patient is receiving ICU care in a non-ICU setting due to bed availability issues then capture as an ICU day.

Example #	Start Date	Start Time	Stop Date	Stop Time	LOS
A.	01/01/11	01:00	01/01/11	04:00	1 day (one calendar day)
B.	01/01/11	01:00	01/01/11	04:00	
	01/01/11	16:00	01/01/11	18:00	1 day (2 episodes within one calendar day)
C.	01/01/11	01:00	01/01/11	04:00	
	01/02/11	16:00	01/02/11	18:00	2 days (episodes on 2 separate calendar days)
D.	01/01/11	01:00	01/01/11	16:00	
	01/02/11	09:00	01/02/11	18:00	2 days (episodes on 2 separate calendar days)
E.	01/01/11	01:00	01/01/11	16:00	
	01/02/11	09:00	01/02/11	21:00	2 days (episodes on 2 separate calendar days)
F.	01/01/11	Unknown	01/01/11	16:00	1 day
G.	01/01/11	Unknown	01/02/11	16:00	2 days (patient was in ICU on 2 separate calendar days)
H.	01/01/11	Unknown	01/02/11	16:00	
	01/02/11	18:00	01/02/11	Unknown	2 days (patient was in ICU on 2 separate calendar days)
I.	01/01/11	Unknown	01/02/11	16:00	
	01/02/11	18:00	01/02/11	20:00	2 days (patient was in ICU on 2 separate calendar days)
J.	01/01/11	Unknown	01/02/11	16:00	
	01/03/11	18:00	01/03/11	20:00	3 days (patient was in ICU on 3 separate calendar days)
K.	Unknown	Unknown	01/02/11	16:00	
	01/03/11	18:00	01/03/11	20:00	Unknown (can't compute total)

Def. Source: NTDS

Data Base Column Name: ICUDAYS
Type of Field: Numeric
Length: 6
Validation Range: +/- 1 day

Report: #1

TOTAL VENTILATOR DAYS
The cumulative amount of time spent on the ventilator. Each partial or full day should be measured as one calendar day.

- Excludes mechanical ventilation time associated with OR procedures.
- Non-invasive means of ventilatory support (CPAP or BIPAP) should not be considered in the calculation of ventilator days.
- Recorded in full day increments with any partial calendar day counted as a full calendar day.
- The calculation assumes that the date and time of starting and stopping Ventilator episode are recorded in the patient's chart.
- The null value "Not Known/Not Recorded" is used if any dates are missing.
- At no time should the Total Vent Days exceed the Hospital LOS.
- The null value "Not Applicable" is used if the patient was not on the ventilator according to the above definition.

Example #	Start Date	Start Time	Stop Date	Stop Time	LOS
A.	01/01/11	01:00	01/01/11	04:00	1 day (one calendar day)
B.	01/01/11	01:00	01/01/11	04:00	

Example #	Start Date	Start Time	Stop Date	Stop Time	LOS
	01/01/11	16:00	01/01/11	18:00	1 day (2 episodes within one calendar day)
C.	01/01/11	01:00	01/01/11	04:00	
	01/02/11	16:00	01/02/11	18:00	2 days (episodes on 2 separate calendar days)
D.	01/01/11	01:00	01/01/11	16:00	
	01/02/11	09:00	01/02/11	18:00	2 days (episodes on 2 separate calendar days)
E.	01/01/11	01:00	01/01/11	16:00	
	01/02/11	09:00	01/02/11	21:00	2 days (episodes on 2 separate calendar days)
F.	01/01/11	Unknown	01/01/11	16:00	1 day
G.	01/01/11	Unknown	01/02/11	16:00	2 days (patient was on Vent on 2 separate calendar days)
H.	01/01/11	Unknown	01/02/11	16:00	
	01/02/11	18:00	01/02/11	Unknown	2 days (patient was on Vent on 2 separate calendar days)
I.	01/01/11	Unknown	01/02/11	16:00	
	01/02/11	18:00	01/02/11	20:00	2 days (patient was on Vent on 2 separate calendar days)
J.	01/01/11	Unknown	01/02/11	16:00	
	01/03/11	18:00	01/03/11	20:00	3 days (patient was on Vent on 3 separate calendar days)

Def. Source: NTDS

Data Base Column Name: VSUP_DAYS
Type of Field: Numeric
Length: 3
Validation Range: +/- 1 day

Report: #1

HOSPITAL DISCHARGE DATE

The date the patient was discharged from the hospital.

• Collected as MM-DD-YYYY.
• The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/expired).
• The null value "Not Applicable" is used if ED Discharge Disposition = 4,6,9,10, or 11.
• If Hospital Discharge Disposition is 5 Deceased/Expired, then the Hospital Discharge Date is the date of death as indicated on the patient's death certificate.

Def. Source: MTQIP

Data Base Column Name: DCDT
Type of Field: Date
Length: 8

Report: #1

HOSPITAL DISCHARGE TIME

The time the patient was discharged from the hospital.

• Collected as HH:MM military time.
• The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/expired).
• The null value "Not Applicable" is used if ED Discharge Disposition = 4,6,9,10, or 11.
• If Hospital Discharge Disposition is 5 Deceased/Expired, then the Hospital Discharge Time is the date of death as indicated on the patient's death certificate.

Def. Source: MTQIP

Data Base Column Name: DCTM
Type of Field: Character (Time Format)
Length: 5

Report: #1

HOSPITAL DISCHARGE DISPOSITION

The disposition of the patient when discharged from the hospital.

• Field value = 6, "home" refers to the patient's current place of residence (e.g., prison, Child Protective Services etc.)
• Field values based upon UB-04 disposition coding.
• Disposition to any other non-medical facility should be coded as 6.
• Disposition to any other medical facility should be coded as 14.
• The null value "Not Applicable" is used if ED Discharge Disposition = 5 (Deceased/expired).
• The null value "Not Applicable" is used if ED Discharge Disposition = 4,6,9,10, or 11.
• Hospital Discharge Dispositions which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Hospital Discharge Dispositions.

(1) Discharged/Transferred to a short-term general hospital for inpatient care
(2) Discharged/Transferred to an Intermediate Care Facility (ICF)
(3) Discharged/Transferred to home under care of organized home health service
(4) Left against medical advice or discontinued care
(5) Deceased/Expired
(6) Discharged home with no home services (routine discharge)
(7) Discharged/Transferred to Skilled Nursing Facility (SNF)
(8) Discharged/Transferred to hospice care
(10) Discharged/Transferred to court/law enforcement
(11) Discharged/Transferred to inpatient rehab or designated unit (Acute rehabilitation or Subacute rehabilitation)
(12) Discharged/Transferred to Long Term Care Hospital (LTCH, LTAC or Select Specialty)
(13) Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
(14) Discharged/Transferred to another type of institution not defined elsewhere

Def. Source: NTDS

Data Base Column Name: HOSPDISP, HOSPDISP_AS_TEXT
Type of Field: Numeric, Character
Length: 30
Validation Range: Option 7 or 14 will be accepted for ECF disposition

Report: #1

DISCHARGE SERVICE

Choose the service that the patient was discharged from.

(1) Trauma
(2) Neurosurgery
(3) Orthopedics

(4) General Surgery
(5) Pediatric Surgery
(6) Cardiothoracic Surgery
(7) Burn Services
(8) Emergency Medicine
(9) Pediatrics
(10) Anesthesiology
(11) Cardiology
(14) Critical Care
(16) Documentation Recorder
(19) ENT
(20) Family Medicine
(21) GI
(23) Hospitalist
(24) Infectious Disease
(25) Internal Medicine
(27) Nephrology
(28) Neurology
(29) Nurse Practitioner
(30) Nursing
(32) Ob-Gyn
(34) Oncology
(35) Ophthalmology
(36) Oral Surgery
(37) Oromaxillo Facial Service
(38) Ortho-Spine
(43) Plastic Surgery
(45) Pulmonary
(46) Radiology
(48) Respiratory Therapist
(52) Thoracic Surgery
(53) Trauma Resuscitation Nurse
(54) Triage Nurse
(55) Urology
(56) Vascular Surgery
(98) Other Surgical
(99) Other Non-Surgical
? Unknown

Def. Source: MTQIP

Data Base Column Name: HOSDISSERV
Type of Field: Character
Length: 15

Report: #1

DEATH LOCATION
Record the location of patient death if death in the hospital occurred.

(1) ED (Emergency Department)
(2) Floor (Floor)
(3) ICU (Intensive Care Unit)
(4) OR (Operating Room)
(5) Radiology (Radiology)

Def. Source: MTQIP

Data Base Column Name: HODEATHLOC

Type of Field: Character
Length:

Report: #1

DEATH IN FIRST OR

Record as "YES" if patient expired during first OR (emergent). OR start time (incision) must be within 12 hours of injury.

(1) Yes
(2) No

Def. Source: MTQIP

Data Base Column Name: MTQIP_DEATH_FIRST_OR
Type of Field: Custom, Yes/No
Length: 1

Report: #1

TOTAL DAYS IN HOSPITAL

Total number of days spent in hospital (calculate from admit and discharge date).

Def. Source:
Data Base Column Name: HOSPDAYS
Type of Field: Numeric
Length: 4

Report: #1

FINANCIAL INFORMATION

PRIMARY METHOD OF PAYMENT

Primary source of payment for hospital care.

• No Fault Automobile, Workers Compensation, and Blue Cross/Blue Shield should NOT be captured as Private/Commercial Insurance. These entities will remain available in your registry and will map to Private/Commercial for non-MTQIP submissions.

(1) Medicaid
(2) Not Billed (for any reason)
(3) Self Pay
(4) Private/Commercial Insurance
(5) No Fault Automobile
(6) Medicare
(7) Other Government
(8) Workers Compensation
(9) Blue Cross/Blue Shield
(10) Other

Def. Source: NTDS

Data Base Column Name: INSUR
Type of Field: Character
Length: 15

HOSPITAL COMPLICATIONS

GENERAL

Any medical complication that occurred during the patient's stay at your hospital.

• The patient's stay begins on arrival to the emergency department.
• Do not include captured complications that are present prior to arrival. For example, a patient arrives with a urinary tract infection as indicated by symptoms present in documentation obtained on arrival and a culture obtained on arrival.
• The null value "Not Applicable" should be used for patients with no complications.
• For all Hospital Complications that follow the CDC definition [e.g., VAP, CAUTI, CLABSI, Osteomyelitis] always use the most recent definition provided by the CDC.
• Check all that apply.
• Hospital Complications which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Hospital Complications.

COMPLICATION CODE
Enter all corresponding 2-digit NTDS or MTQIP codes for complications collected in the outcomes section of the registry software. Retired NTDS variables are used and indicated below variable for variables that the collaborative continues to capture.

Def. Source: NTDS

Data Base Column Name: TCODE
Type of Field: Character
Length: 4

Report: #6 (Include TRAUMA_NUM, TCODE, COMP_DESC, COMPOCDATE)

COMPLICATION DATE
For all outcomes, enter the corresponding date when the complication was first recognized. Recognition of the condition is based on satisfying the criteria listed below. The specific term describing the condition does not necessarily have to be identified in the progress notes.

> Example: A progress note states that the patient's incision was red with purulent drainage necessitating opening of the incision by staple removal. This is a positive result for superficial incisional SSI regardless if the note specifically mentions a wound infection.

Def. Source:

Data Base Column Name: COMPOCDATE
Type of Field: Date
Length: 8

Report: #6 (Include RECORDNO, TRAUMACTR, A_TCODE, A_TCODE_AS _TEXT, A_COMPOCDT)

WOUND OCCURENCES

SUPERFICIAL INCISIONAL SURGICAL SITE INFECTION
Infection occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date)
AND
Involves only skin and subcutaneous tissue of the incision
AND
Patient has at least one of the following:

a. Purulent drainage from the superficial incision.
b. Organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST).
c. Superficial incision that is deliberately opened by a surgeon, attending physician** or other designee and culture or non-culture based testing is not performed.

AND patient has at least one of the following signs or symptoms: pain or tenderness; localized swelling; erythema; or heat. A culture or non-culture based test that has a negative finding does not meet this criterion.
d. diagnosis of a superficial incisional SSI by the surgeon or attending physician** or other designee.

http://www.cdc.gov/nhsn/xls/icd10-pcs-pcm-nhsn-opc.xlsx
http://www.cdc.gov/nhsn/xls/cpt-pcm-nhsn.xlsx

** The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease, other physician on the case, emergency physician or physician's designee (nurse practitioner or physician's assistant).

Comments

There are two specific types of superficial incisional SSIs:
1. Superficial Incisional Primary (SIP) – a superficial incisional SSI that is identified in the primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for CBGB)
2. Superficial Incisional Secondary (SIS) – a superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site incision for CBGB)

Reporting Instructions for Superficial SSI

The following do not qualify as criteria for meeting the NHSN definition of superficial SSI:
1. Diagnosis/treatment of cellulitis (redness/warmth/swelling), by itself, does not meet criterion d for superficial incisional SSI. An incision that is draining or that has organisms identified by culture or non-culture based testing is not considered a cellulitis.
2. A stitch abscess alone (minimal inflammation and discharge confined to the points of suture penetration)
3. A localized stab wound or pin site infection. While it would be considered either a skin (SKIN) or soft tissue (ST) infection, depending on its depth, it is not reportable under this module.
4. Note: A laparoscopic trocar site for an NHSN operative procedure is not considered a stab wound.
5. Circumcision is not an NHSN operative procedure. An infected circumcision site in newborns is classified as CIRC and is not reportable under this module.
6. An infected burn wound is classified as BURN and is not reportable under this module.

Def. Source: NTDS, CDC

Superficial Surgical Site Infection: Retired 2017 (NTDS 23)
Superficial Incisional Surgical Site Infection (NTDS 38)

DEEP INCISIONAL SURGICAL SITE INFECTION
Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in the table below
AND
Involves deep soft tissues of the incision (e.g., fascial and muscle layers)
AND
Patient has at least one of the following:
a. purulent drainage from the deep incision.
b. a deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician** or other designee and organism is identified by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST) or culture or non-culture based microbiologic testing method is not performed
AND patient has at least one of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.
c. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test

** The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease, other physician on the case, emergency physician or physician's designee (nurse practitioner or physician's assistant).

Comments

There are two specific types of deep incisional SSIs:
1. Deep Incisional Primary (DIP) – a deep incisional SSI that is identified in a primary incision in a patient that has had an operation with one or more incisions (e.g., C-section incision or chest incision for CBGB)
2. Deep Incisional Secondary (DIS) – a deep incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (e.g., donor site incision for CBGB)

Selected NHSN Operative Procedures Table

30-day Surveillance	
Operative Procedure	Operative Procedure
Abdominal aortic aneurysm repair	Laminectomy
Limb amputation	Liver transplant
Appendix surgery	Neck surgery
Shunt for dialysis	Kidney surgery
Bile duct, liver or pancreatic surgery	Ovarian surgery
Carotid endarterectomy	Prostate surgery
Gallbladder surgery	Rectal surgery
Colon surgery	Small bowel surgery
Cesarean section	Spleen surgery
Gastric surgery	Thoracic surgery
Heart transplant	Thyroid and/or parathyroid surgery
Abdominal hysterectomy	Vaginal hysterectomy
Kidney transplant	Exploratory Laparotomy
90-day Surveillance	
Operative Procedure	
Breast surgery	
Cardiac surgery	
Coronary artery bypass graft with both chest and donor site incisions	
Coronary artery bypass graft with chest incision only	
Craniotomy	
Spinal fusion	
Open reduction of fracture	
Herniorrhaphy	
Hip prosthesis	
Knee prosthesis	
Pacemaker surgery	
Peripheral vascular bypass surgery	
Ventricular shunt	

Def. Source: NTDS, CDC

Deep Incisional Surgical Site Infection (NTDS 12)

ORGAN/SPACE SURGICAL SITE INFECTION
Infection occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in the Selected NHSN Operative Procedures Table above.
AND
Infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure
AND
Patient has at least one of the following:

a. purulent drainage from a drain that is placed into the organ/space (e.g., closed suction drainage system, open drain, T-tube drain, CT guided drainage)

b. organisms are identified from an aseptically-obtained fluid or tissue in the organ/space by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST).

c. an abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test
AND meets at least one criterion for a specific organ/space infection site listed in the Specified Sites of an Organ/Space SSI below. These criteria are found in the Surveillance Definitions for Specific Types of Infections chapter.

Specified Sites of an Organ/Space SSI

Site	Site
Osteomyelitis	Other infections of the respiratory tract
Breast abscess mastitis	Mediastinitis
Myocarditis or pericarditis	Meningitis or ventriculitis
Disc space	Oral cavity (mouth, tongue, or gums)
Ear, mastoid	Other infections of the male or female reproductive tract
Endometritis	Periprosthetic Joint Infection
Endocarditis	Spinal abscess without meningitis
Eye, other than conjunctivitis	Sinusitis
GI tract	Upper respiratory tract
Hepatitis	Urinary System Infection
Intraabdominal, not specified	Arterial or venous infection
Intracranial, brain abscess or dura	Vaginal cuff
Joint or bursa	

An empyema is the result of accumulation or undrained fluid within the pleural cavity that becomes purulent. Enter "YES" for patients that had a chest tube placed and then developed an empyema that required management with placement of a new chest tube (empyema tube), VATS drainage, or thoracentesis with positive culture.

Def. Source: NTDS, MTQIP

Organ/Space Surgical Site Infection (NTDS 19)

WOUND DISRUPTION

Separation of the layers of a surgical wound, which may be partial or complete, with disruption of the fascia.

Def. Source: NSQIP, MTQIP

Would Disruption (NTDS 26)

ABDOMINAL FASCIA LEFT OPEN

Record as "YES" if the abdominal wall fascia was left open for any reason following first exploratory laparotomy.

Def. Source: CDC, NTDS, MTQIP

Abdominal Fascia Left Open (NTDS 3)

RESPIRATORY OCCURRENCES

ACUTE RESPIRATORY DISTRESS SYNDROME (ARDS)

Timing	Within 1 week of known clinical insult or new or worsening respiratory symptoms
Chest imaging	Bilateral opacities – not fully explained by effusions, lobar/lung collapse, or nodules
Origin of edema	Respiratory failure not fully explained by cardiac failure of fluid overload. Need objective assessment (e.g., echocardiography) to exclude hydrostatic edema if one of the following risk factors are not present. Common risk factors: non-pulmonary sepsis, major trauma (ISS $\geq$ 20), pneumonia, pulmonary

	contusion, aspiration of gastric contents, non-cardiogenic shock, drug overdose, multiple transfusions, transfusion-associated acute lung injury (TRALI), pancreatitis, inhalation injury, pulmonary vasculitis, drowning, severe burns.
Oxygenation	Pa02/Fi02 ≤ 300 with PEEP or CPAP ≥ 5 cm H20

Def. Source: NTDS, New Berlin

Acute Respiratory Distress Syndrome (NTDS 5)

PNEUMONIA
Patients with evidence of pneumonia that develops during hospitalization. Patients with pneumonia must meet at least one of the following three criteria:

Criterion 1:
Rales or dullness to percussion on physical examination of chest **AND** any of the following:

a. New onset of purulent sputum or change in character of sputum
b. Organism isolated from blood culture
c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy

OR

Criterion 2:
Chest radiographic examination shows new or progressive infiltrate, consolidation, cavitation, or pleural effusion **AND** any of the following:

a. New onset of purulent sputum or change in character of sputum
b. Organism isolated from blood culture
c. Isolation of pathogen from specimen obtained by transtracheal aspirate, bronchial brushing, or biopsy
d. Isolation of virus or detection of viral antigen in respiratory secretions
e. Diagnostic single antibody titer (IgM) or fourfold increase in paired serum samples (IgG) for pathogen
f. Histopathologic evidence of pneumonia

Criterion 3:
Patient meets criteria for Ventilator-Associated Pneumonia (capture under both VAP and Pneumonia).

Def. Source: NSQIP, NTDS

Pneumonia (NTDS 20)

VENTILATOR-ASSOCIATED PNEUMONIA
(Consistent with the January 2017 CDC defined VAP. Always use the most recent definition provided by the CDC.)

A pneumonia where the patient is on mechanical ventilation for > 2 calendar days on the date of event, with day of ventilator placement being Day 1,
AND
The ventilator was in place on the date of event or the day before. If the patient is admitted or transferred into a facility on a ventilator, the day of admission is considered Day 1.

Note: For patients with Candida species, please see CDC hyperlink on page 6-4 for additional capture commentary.

Table 2: Specific Site Algorithms for Pneumonia with Common Bacterial or Filamentous Fungal Pathogens and Specific Laboratory Findings (PNU2)

Imaging Test Evidence	**Signs/Symptoms**	**Laboratory**
Two or more serial chest imaging test results with at least ***one*** of the following[1,2]: New and persistent **or** Progressive and persistent • Infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old **Note**: In patients *without* underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.[1]	At least ***one*** of the following: • Fever (>38.0°C or >100.4°F) • Leukopenia (≤4000 WBC/mm^3) or leukocytosis (≥12,000 WBC/mm^3) • For adults ≥70 years old, altered mental status with no other recognized cause And at least ***one*** of the following: • New onset of purulent sputum[3] or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, or dyspnea or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (e.g., O_2 desaturations [e.g., PaO_2/FiO_2 ≤240][7], increased oxygen requirements, or increased ventilator demand)	At least ***one*** of the following: • Organism identified from blood [8,13] • Organism identified from pleural fluid[9,13] • Positive quantitative culture[9] from minimally-contaminated LRT specimen (e.g., BAL or protected specimen brushing) • ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (e.g., Gram's stain) • Positive quantitative culture[9] of lung tissue • Histopathologic exam shows at least ***one*** of the following evidences of pneumonia: o Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli o Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae

Table 3: Specific Site Algorithms for Viral, Legionella, and other Bacterial Pneumonias with Definitive Laboratory Findings (PNU2)

Imaging Test Evidence	**Signs/Symptoms**	**Laboratory**
Two or more serial chest imaging test results with at least ***one*** of the following[1,2]: New and persistent **or** Progressive and persistent • Infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old **Note:** In patients *without* underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.[1]	At least ***one*** of the following: • Fever (>38.0°C or >100.4°F) • Leukopenia (≤4000 WBC/mm^3) or leukocytosis (≥12,000 WBC/mm^3) • For adults ≥70 years old, altered mental status with no other recognized cause And at least ***one*** of the following: • New onset of purulent sputum[3] or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough or dyspnea, or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (e.g., O_2 desaturations [e.g., PaO_2/FiO_2 ≤240][7], increased oxygen requirements, or increased ventilator demand)	At least ***one*** of the following: • Virus, *Bordetella, Legionella, Chlamydia or Mycoplasma* identified from respiratory secretions or tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST). • Fourfold rise in paired sera (IgG) for pathogen (e.g., influenza viruses, *Chlamydia*) • Fourfold rise in *Legionella pneumophila* serogroup 1 antibody titer to ≥1:128 in paired acute and convalescent sera by indirect IFA. • Detection of *L. pneumophila* serogroup 1 antigens in urine by RIA or EIA

Table 4: Specific Site Algorithm for Pneumonia in Immunocompromised Patients (PNU3)

Imaging Test Evidence	Signs/Symptoms	Laboratory
Two or more serial chest imaging test results with at least ***one*** of the following[1,2]: New and persistent **or** Progressive and persistent • Infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old **Note:** In patients ***without*** underlying pulmonary or cardiac disease (e.g., respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), one definitive chest imaging test result is acceptable.[1]	Patient who is immunocompromised (see definition in footnote [10]) has at least ***one*** of the following: • Fever (>38.0°C or >100.4°F) • For adults ≥70 years old, altered mental status with no other recognized cause • New onset of purulent sputum[3], or change in character of sputum[4], or increased respiratory secretions, or increased suctioning requirements • New onset or worsening cough, or dyspnea, or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (e.g., O_2 desaturations [e.g., PaO_2/FiO_2 ≤240][7], increased oxygen requirements, or increased ventilator demand) • Hemoptysis • Pleuritic chest pain	At least ***one*** of the following: • Identification of matching *Candida* spp. from blood and sputum, endotracheal aspirate, BAL or protected specimen brushing.[11,12,13] • Evidence of fungi from minimally-contaminated LRT specimen (e.g., BAL or protected specimen brushing) from one of the following: – Direct microscopic exam – Positive culture of fungi – Non-culture diagnostic laboratory test Any of the following from: **LABORATORY CRITERIA DEFINED UNDER PNU2**

Def. Source: CDC, NTDS

Ventilator-Associated Pneumonia (NTDS 35)

UNPLANNED INTUBATION
Patient requires placement of an endotracheal tube and mechanical or assisted ventilation because of the onset of respiratory or cardiac failure manifested by severe respiratory distress, hypoxia, hypercarbia, or respiratory acidosis. In patients who were intubated in the field, emergency department, or those intubated for surgery, unplanned intubation occurs if they require reintubation >24 hours after extubation.

Def. Source: CDC, NTDS

Unplanned Intubation (NTDS 25)

PULMONARY EMBOLISM

A lodging of a blood clot in the 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. Consider the condition present if the patient has a V-Q scan interpreted as high probability of pulmonary embolism or a positive pulmonary arteriogram or positive spiral CT or CT angiogram.

Def. Source: NTDS

Pulmonary Embolism (NTDS 21)

URINARY TRACT OCCURRENCES

ACUTE RENAL INSUFFICIENCY

The reduced capacity of the kidney to perform its function as evidenced by a rise in creatinine of >2 mg/dl from baseline value, but with no requirement for dialysis. Assume a baseline value of 1.0 mg/dl in the absence of additional information regarding the patient's pre-injury renal function. If continued decline in renal function meeting definition for acute kidney injury only capture acute kidney injury.

Def. Source: NSQIP

Acute Renal Insufficiency (MTQIP 101)

ACUTE KIDNEY INJURY

A patient who did not require chronic renal replacement therapy prior to injury, who has worsening renal dysfunction after injury requiring renal replacement therapy. If the patient or family refuses treatment (e.g., dialysis), the condition is still considered to be present if a combination of oliguria and increased creatinine criteria are present. Exclude renal replacement therapy for the sole indication of drug clearance.

GFR criteria: Increase creatinine x3 or GFR decrease > 75%

Urine output criteria: UO < 0.3ml/kg/h x 24 hr or Anuria x 12 hrs

Def. Source: NSQIP

Acute Kidney Injury (NTDS 4)

CATHETER-ASSOCIATED URINARY TRACT INFECTION

(Consistent with the January 2016 CDC defined CAUTI. Always use the most recent definition provided by the CDC.) A UTI where an indwelling urinary catheter was in place for > 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 > 2 calendar days and then removed, the date of event for the UTI must be the day of discontinuation or the next day for the UTI to be catheter-associated.

CAUTI Criterion SUTI 1a:

Patient must meet 1, 2, and 3 below:

1. Patient has an indwelling urinary catheter in place for the entire day on the date of event and such catheter had been in place for >2 calendar days, on that date (day of device placement = Day 1) AND was either:
    - Present for any portion of the calendar day on the date of event, OR
    - Removed the day before the date of event
2. Patient has at least one of the following signs or symptoms:

- Fever (>38C)
- Suprapubic tenderness with no other recognized cause
- Costovertebral angle pain or tenderness with no other recognized cause

3. Patient has a urine culture with no more than two species of organisms, at least one of which is bacteria >10^5 CFU/ml.

Def. Source: CDC, NTDS

Urinary Tract Infection: Retired 2016 (NTDS 27)
Catheter-Associated Urinary Tract Infection (NTDS 33)

CNS OCCURRENCES

STROKE/CEREBRAL VASCULAR ACCIDENT (CVA)
A focal or global neurological deficit of rapid onset and **NOT** present on admission. The patient must have at least one of the following symptoms:

1. Change in level of consciousness,
2. Hemiplegia,
3. Hemiparesis,
4. Numbness or sensory loss affecting one side of the body,
5. Dysphasia or aphasia,
6. Hemianopia
7. Amaurosis fugax,
8. Or other neurological signs or symptoms consistent with stroke

AND

- Duration of neurological deficit ≥24 h

OR

- Duration of deficit <24 h, if neuroimaging (MR, CT, or cerebral angiography) documents a new hemorrhage or infarct consistent with stroke, or therapeutic intervention(s) were performed for stroke, or the neurological deficit results in death

AND

- No other readily identifiable non-stroke cause, e.g., progression of existing traumatic brain injury, seizure, tumor, metabolic or pharmacologic etiologies, is identified

AND

- Diagnosis is confirmed by neurology or neurosurgical specialist or neuroimaging procedure (MR, CT, angiography) or lumbar puncture (CSF demonstrating intracranial hemorrhage that was not present on admission).

Although the neurologic deficit must not present on admission, risk factors predisposing to stroke (e.g., blunt cerebrovascular injury, dysrhythmia) may be present on admission.

Def. Source: NSQIP, NTDS

Stroke/Cerebrovascular Accident (NTDS 22)

CARDIAC OCCURRENCES

CARDIAC ARREST WITH CPR
Cardiac arrest is the sudden cessation of cardiac activity after hospital arrival. The patient becomes unresponsive with no normal breathing and no signs of circulation. If corrective measures are not taken rapidly, this condition progresses to sudden death. Enter date and location of CPR or similar advanced measures e.g. open cardiac massage (in the procedures section.

EXCLUDE patients who are receiving CPR on arrival to your hospital.

INCLUDE patients who have had an episode of cardiac arrest evaluated by hospital personnel and received compressions or defibrillation or cardioversion or cardiac pacing to restore circulation.

Def. Source: NSQIP, NTDS

Cardiac Arrest with CPR (NTDS 8)

MYOCARDIAL INFARCTION

An acute myocardial infarction must be noted with documentation of any of the following:

Documentation of ECG changes indicative of acute MI (one or more of the following three):
1. ST elevation >1 mm in two or more contiguous leads
2. New left bundle branch block
3. New q-wave in two or more contiguous leads

OR

New elevation in troponin greater than three times upper level of the reference range in the setting of suspected myocardial ischemia

OR

Physician diagnosis of myocardial infarction

Def. Source: NSQIP, NTDS

Myocardial Infarction (NTDS 18)

OTHER OCCURRENCES

CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTION

(Consistent with the January 2016 CDC defined CLABSI. Always use the most recent definition provided by the CDC.): A laboratory-confirmed bloodstream infection (LCBI) where central line (CL) or umbilical catheter (UC) was in place for >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. If a CL or UC was in place for > 2 calendar days and then removed, the date of event of the LCBI must be the day of discontinuation or the next day to be a CLABSI. If the patient is admitted or transferred into a facility with an implanted central line (port) in place, and that is the patient's only central line, day of first access in an inpatient location is considered Day 1. "Access" is defined as line placement, infusion or withdrawal through the line. Such lines continue to be eligible for CLABSI once they are accessed until they are either discontinued or the day after patient discharge (as per the Transfer Rule.) Note that the "de-access" of a port does not result in the patient's removal from CLABSI surveillance.

January 2016 CDC Criterion LCBI 1:

Patient has a recognized pathogen identified from one or more blood specimens by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST).

AND

Organism(s) identified in blood is not related to an infection at another site.

January 2016 CDC Criterion LCBI 2:

Patient has at least one of the following signs or symptoms: fever (>38C), chills, or hypotension

AND

Organism(s) identified from blood is not related to an infection at another site.

AND

The same common commensal (i.e., diphtheroids [Corynebacterium spp. not C. diphtheriae], Bacillus spp. [not B. anthracis], Propionibacterium spp., coagulase-negative staphylococci

[including S. epidermidis], viridans group streptococci, Aerococcus spp., and Micrococcus spp.) is identified from two or more blood specimens drawn on separate occasions, by a culture or non- culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST.) Criterion elements must occur within the Infection Window Period, the 7-day time period which includes the collection date of the positive blood, the 3 calendar days before and the 3 calendar days after.

Def. Source: CDC, NTDS

Central Line-Associated Bloodstrem Infection (NTDS 34)

DEEP VEIN THROMBOSIS (DVT)
The formation, development, or existence of a blood clot or thrombus within the vascular system, which may be coupled with inflammation. This diagnosis may be confirmed by venogram, ultrasound, or CT scan. The patient should be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava. Also include as a positive result, patients with deep vein thrombosis where the attending physician documents therapeutic anticoagulation contraindication due to bleeding risk. Do not include as a positive result, thrombosis of superficial veins of the upper or lower extremities, such as the cephalic or greater saphenous vein. Answer "YES" for gastrocnemius and soleus vein thromboses if the patient receives treatment or contraindication is documented.

Def. Source: NSQIP, NTDS

Deep Vein Thrombosis (NTDS 14)

ALCOHOL WITHDRAWAL SYNDROME
Characterized by tremor, sweating, anxiety, agitation, depression, nausea, and malaise. It occurs 6-48 hours after cessation of alcohol consumption, and when uncomplicated, abates after 2-5 days. It may be complicated by grand mal seizures and may progress to delirium (known as delirium tremens).

Def. Source: NTDS, WHO

Drug or Alcohol Withdrawal Syndrome: Retired 2017 (NTDS 13)
Alcohol Withdrawal Syndrom (NTDS 36)

EXTREMITY COMPARTMENT SYNDROME
A condition not present at admission in which there is documentation of tense muscular compartments of an extremity through clinical assessment or direct measurement of intracompartmental pressure requiring fasciotomy. Compartment syndrome usually involves the leg but can also occur in the forearm, arm, thigh, and shoulder. Record as a complication if it is originally missed leading to late recognition, a need for late intervention, and has threatened limb viability. Answer "NO" if a fasciotomy is performed prophylactically without evidence of elevated compartment pressures (> 25mmHg).

Def. Source: NTDS, MTQIP

Extremity Compartment Syndrome (NTDS 15)

ABDMOMINAL COMPARTMENT SYNDROME
Defined as a condition in which there is swelling and sudden increase in pressure within the abdominal space (a fascial compartment) that presses on and compromises blood vessels and end organ function. Alterations typically occur to the respiratory mechanism, hemodynamic parameters, and renal perfusion. Answer "YES" if the abdomen must be opened or a percutaneous drain placed to lower the intraabdominal pressure and relieve end organ dysfunction.

Def. Source: MTQIP

Abdominal Compartment Syndrome (NTDS 2)

OSTEOMYELITIS
Osteomyelitis must meet at least one of the following criteria:

1. Patient has organisms identified from bone by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment (e.g., not Active Surveillance

Culture/Testing (ASC/AST).

2. Patient has evidence of osteomyelitis on gross anatomic or histopathologic exam.
3. Patient has at least two of the following localized signs or symptoms: fever (>38.0°C), swelling*, pain or tenderness*, heat*, or drainage*

And at least one of the following:

a. Organisms identified from blood by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment (e.g., not Active Surveillance Culture/Testing (ASC/AST) in a patient with imaging test evidence suggestive of infection (e.g., x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc.]), which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for osteomyelitis).
b. Imaging test evidence suggestive of infection (e.g., x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc.]), which if equivocal is supported by clinical correlation (i.e., physician documentation of antimicrobial treatment for osteomyelitis).

*With no other recognized cause

Def. Source: NTDS, CDC

Osteomyelitis (NTDS 29)

OTHER
Enter other complications post-injury present in physician documentation and requiring treatment, but not on NTDS list. The entry “Not applicable” indicates no complications present at all.

Def. Source: NTDS 2012

Other (NTDS 1)

SEPSIS
Sepsis is life-threatening organ dysfunction due to a dysregulated host response to infection. Septic shock is defined as a subset of sepsis in which particularly profound circulatory, cellular, and metabolic abnormalities substantially increase mortality. The baseline SOFA score should be assumed to be zero unless the patient is known to have preexisting (acute or chronic) organ dysfunction before the onset of infection.

Presence of infection

1. Documented infection

AND

Sepsis Quick Sequential Organ Failure Criteria (qSOFA) – 2 or more of the following are required:

1. Altered mentation (GCS $\leq$ 13)
2. Systolic blood pressure $\leq$ 100 mmHg
3. Respiratory rate $\geq$ 22 breaths/min

OR

Septic Shock - all required

1. Persistent hypotension requiring vasopressors to maintain MAP ≥65 mmHg
2. Serum lactate level >2 mmol/L (18 mg/dL) despite adequate volume resuscitation

Def. Source: SCCM 2016

Sepsis (NTDS 32)

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. Excludes intact skin with non-blanching redness (NPUAP Stage I), which is considered reversible tissue injury.

Def. Source: NTDS, NPUAP

Decubitus Ulcer: Retired 2017 (NTDS 11)
Pressure Ulcer (NTDS 37)

ENTEROCUTANEOUS FISTULA OR GI LEAK
Defined as a fistula of the gastrointestinal tract (stomach, duodenum, small bowel, or large bowel) to the skin, open wound, or body cavity resulting from injury, break down/leak of GI anastomosis. This is typically documented in the patient physical exam or by radiologic study with presence of leakage of gastrointestinal contents or contrast.

Def. Source: MTQIP

Enterocutaneous Fistula (NTDS 4005, 4001)

C. DIFF COLITIS
Defined as one of the following:

1. Diarrhea plus stool test positive for presence of toxigenic C. difficile or its toxins
2. Colonoscopic findings demonstrating pseudomembranous colitis
3. Histopathologic findings demonstrating pseudomembranous colitis

(1) Yes
(2) No

Def. Source: MTQIP

Data Base Column Name: MTQIP_C_DIFF
Custom
Type of Field: Yes/No*
Length:

Report: #1

UNPLANNED RETURN TO OR
Unplanned return to the operating room after initial operation management for a similar or related previous procedure.

Def. Source: NTDS

Unplanned Return to OR (NTDS 30)

UNPLANNED ADMISSION TO ICU
INCLUDE:
• Patients admitted to the ICU after initial transfer to the floor.
• Patients with an unplanned return to the ICU after initial ICU discharge.

EXCLUDE:
• Patients in which ICU care was required for postoperative care of a planned surgical procedure.

Def. Source: NTDS

MEASURES FOR PROCESSES OF CARE

TRAUMATIC BRAIN INJURY

HIGHEST GCS TOTAL
Highest total GCS within 24 hours of ED/hospital arrival.

- Refers to highest total GCS within 24 hours after ED Hospital/Arrival to index hospital, where index hospital is the hospital abstracting the data.
- Requires review of all data sources to obtain the highest GCS total. In many cases, the highest GCS may occur after ED discharge.
- If patient is intubated then the GCS Verbal score is equal to 1.
- Best obtained when sedatives or paralytics are withheld as part of sedation holiday.
- If a patient does not have a numeric GCS recorded, but there is documentation related to their level of consciousness such as "AAOx3," "awake alert and oriented," or "patient with normal mental status," interpret this as GCS of 15 IF there is no other contradicting documentation.
- The null value "Not Applicable" is used for patients that do not meet collection criteria.

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MTQIP_TBI_GCS_H
Type of Field: Custom, Numeric
Length: 2

Report: #1

GCS MOTOR COMPONENT OF HIGHEST GCS TOTAL
Highest motor GCS within 24 hours of ED/hospital arrival.

- Refers to highest GCS motor score within 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Requires review of all data sources to obtain the highest GCS motor score. In many cases, the highest GCS motor score might occur after ED discharge.
- Best obtained when sedatives or paralytics are withheld as part of sedation holiday.
- If a patient does not have a numeric GCS score recorded, but written documentation closely (or directly) relates to verbiage describing a specific level of functioning within the GCS scale, the appropriate numeric score may be listed. E.g. the chart indicates: "patient withdraws from a painful stimulus," a Motor GCS of 4 may be recorded, IF there is no other contradicting documentation.

(1) No motor response
(2) Extension to pain
(3) Flexion to pain
(4) Withdrawal from pain
(5) Localizing pain
(6) Obeys commands

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MTQIP_TBI_GCS_MR
Type of Field: Custom, Numeric
Length: 2

Report: #1

GCS ASSESSMENT QUALIFIER COMPONENT OF HIGHEST GCS TOTAL
Documentation of factors potentially affecting the highest GCS within 24 hours of ED/hospital arrival.

- Refers to highest GCS assessment qualifier score after arrival to index hospital, where index hospital is the hospital abstracting the data.
- The null value "Not Applicable" is used for patients that do not meet the collection criterion.
- Requires review of all data sources to obtain the highest GCS motor score which might occur after the ED phase of care.
- Identifies medical treatments given to the patient that may affect the best assessment of GCS. This field does not apply to self-medication the patient may have administered (i.e. ETOH, prescriptions, etc.).
- Must be the assessment qualifier for the Highest GCS Total.
- If an intubated patient has recently received an agent that results in neuromuscular blockade such that a motor or eye response is not possible, then the patient should be considered to have an exam that is not reflective of their neurologic status and the chemical sedation modifier should be selected.
- Neuromuscular blockade is typically induced following the administration of agent like succinylcholine, mivacurium, rocuronium, (cis)atracurium, vecuronium, or pancuronium. While these are the most common agents, please review what might be typically used in your center so it can be identified in the medical record.
- Each of these agents has a slightly different duration of action, so their effect on the GCS depends on when they were given. For example, succinylcholine's effects last for only 5-10minutes.

L Legitimate without intervention
E Obstruction to eye
S Chemically sedated
T Intubated
TP Intubated and chemically paralyzed
/ Not applicable

Neuromuscular Blockers	
Trade Name	**Generic Name**
Anectine	Succinylcholine
Tracrium	Atracurium
Mivacron	Mivacurium
Nimbex	Cisatracurium
Pavulon	Pancuronium
Norcuron	Vecuronium
Zemuron	Rocuronium

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MTQIP_TBI_GCS_Q
Type of Field: Custom, Character
Length: 2

Report: #1

INITIAL ED/HOSPITAL PUPILLARY RESPONSE

Physiological response of the pupil size within 30 minutes or less of ED/hospital arrival.

•□Please note that the first recorded hospital vitals do not need to be from the same assessment.□
•□If a patient does not have a listed field value recorded, but there is documentation related to their pupillary response such as PERRL "Pupils Equal Round Reactive to Light" submit field value 1. Both reactive IF there is no other contradicting documentation.
•□The null value "Not Known/Not Recorded" should be submitted if this information is not documented or if assessment is unable to be obtained due to facial trauma and/or foreign object in the eye.
• Field value 2. One reactive should be reported for patients who have a prosthetic eye.
• The null value "Not Applicable" is used for patients who do not meet the collection criterion.

(1) Both reactive
(2) One reactive
(3) Neither reactive

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: PUPILLARY_RESPONSE
Custom
Type of Field: Numeric
Length: 2

Report: #1

MIDLINE SHIFT

> 5 mm shift of the brain past its center line within 24 hours after time of injury.

• If there is documentation of "massive" midline shift in lieu of > 5 mm shift measurement, submit field value 1. Yes
• Radiological and surgical documentation from transferring facilities should be considered for this data field.
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.
• The null value "Not Known/Not Recorded" is used if both the injury date and injury time are unknown.
• If the injury time is unknown, but there is supporting documentation that the injury occurred within 24 hours of any CT measuring a > 5 mm shift, report the field value "1. Yes" if there is no other contradicting documentation.
• If the patient was not imaged within 24 hours from the time of injury, report the field value "3. Not Imaged (e.g. CT Scan, MRI)".

(1) Yes
(2) No
(3) Not Imaged (e.g. CT Scan, MRI)

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MIDLINE_SHIFT
Custom
Type of Field: Numeric
Length: 2

Report: #1

CEREBRAL MONITOR

Enter the first (TBIMON1), and if applicable second (TBIMON2), and third (TBIMON3) cerebral monitors placed.

• Indicate all cerebral monitors that were placed, including any of the following: ventriculostomy, subarachnoid bolt, Camino bolt, external ventricular drain (EVD), Licox monitor, jugular venous bulb.
• Refers to insertion of an intracranial pressure (ICP) monitor (or other measures of cerebral perfusion) for the purposes of managing severe TBI.
• Cerebral monitor placed at a referring facility would be acceptable if such a monitor was used by receiving facility to monitor the patient.
• Must also document under procedures if ICD9/ICD 10 code available.
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.

(1) Intraventricular monitor/catheter (e.g. ventriculostomy, external ventricular drain)
(2) Intraparenchymal pressure monitor (e.g. Camino bolt, subarachnoid bolt, intraparenchymal catheter)
(3) Parenchymal oxygen monitor (e.g. Licox monitor)
(4) Jugular venous bulb
(5) None

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MTQIP_TBI_CMON1, MTQIP_TBI_CMON2, MTQIP_TBI_CMON3
Type of Field: Custom, Character (Numeric Output)
Length: 1

Report: #1

CEREBRAL MONITOR DATE

Date of first (MON1DATE), and if applicable, second (MON2DATE) and third (MON3DATE) cerebral monitors placed.

• Collected as YYYY-MM-DD.
• The null value "Not Applicable" is used if the data field Cerebral Monitor is "5. None".
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.
• If the cerebral monitor was placed at the referring facility, cerebral monitor date must be the date of insertion at the referring facility.

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MTQIP_TBI_CMON1_DT, MTQIP_TBI_CMON2_DT, MTQIP_TBI_CMON3_DT
Type of Field: Custom, Date
Length: 8

Report: #1

CEREBRAL MONITOR TIME

Time of first (MON1TIME), and if applicable, second (MON2TIME) and third (MON3TIME) cerebral monitors placed.

• Collected as HH:MM military time.
• The null value "Not Applicable" is used if the data field Cerebral Monitor is "5. None."
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.
• If the cerebral monitor was placed at the referring facility, cerebral monitor time must be the time of insertion at the referring facility.

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: TQIP

Data Base Column Name: MTQIP_TBI_CMON1_TM, MTQIP_TBI_CMON2_TM, MTQIP_TBI_CMON3_TM
Type of Field: Custom, Character (Time Format)
Length: 5

Report: #1

REASON CEREBRAL MONITOR WITHHELD

The reason for withholding cerebral monitor placement.

• Coagulopathy refers to an elevated INR or low platelet count that might occur as a result of the injury or pre-existing conditions (e.g. Coumadin).
• Requires documentation in the medical record as to why cerebral monitor was withheld by a physician.
• If no reason documented, indicate Not Known/Not Recorded.
• If cerebral monitor was placed within 8 hours of ED/hospital arrival then code as NA.

(0) Not Known/Not Recorded
(1) Decision to withhold life sustaining measures
(2) Death prior to correction of coagulopathy
(3) Expected to improve within 8 hours due to effects of alcohol and/or drugs
(4) Operative evacuation
(5) No ICP because of coagulopathy
(6) Attempt made, but unsuccessful due to technical issues
(7) Neurosurgical discretion

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s) AND highest total GCS $\leq$ 8.

Def. Source: MTQIP

Data Base Column Name: MTQIP_TBI_CWITH
Type of Field: Custom, Character (Numeric Output)
Length: 1

Report: #1

BETA BLOCKER TREATMENT

Enter “YES” for patients who receive scheduled administration of parenteral or oral beta blocker medication within 48 hours of admission time to the MTQIP institution. Do not include patients who receive prn or intermittent administration of beta blocker treatment.

Beta Blockers	
Trade Names	**Generic Names**
Sectral	acebutolol
Tenormin, Tenoretic	atenolol
Betapace AF	sotalol AF
Kerlone	betaxolol
Zebeta, Ziac	bisoprolol
Brevibloc	esmolol
Bystolic	nebivolol
Coreg	carvedilol
Corgard	nadolol
Inderal, InnoPran XL	propranolol
Trandate	labetalol

Levatol	penbutolol
Lopressor, Toprol XL	metoprolol
	pindolol
	sotalol
Timolide	timolol

Collection Criterion: Collect on patients with at least one injury in AIS head region, excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

Def. Source: MTQIP

Data Base Column Name: MTQIP_TBI_BETA
Type of Field: Custom, Logical (True/False Output)
Length:

Report: #1

INFECTIOUS DISEASE

ANTIBIOTIC DAYS

The cumulative amount of days the patient received antibiotics administered intravenously at the index hospital. Each partial or full day of drug or multiple drugs should be measured as one calendar day. Recorded in full days increments with any partial day listed as a full day regardless of purpose of administration. Do not include antifungal, antiviral and antiparasitic agents.

Collection Criterion: Collect on all patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_ABX_DAYS
Type of Field: Custom, Character (Numeric Output)
Length: 1
Validation Range: +/- 1 day

Report: #1

ANTIBIOTIC 1 TYPE

- Enter the first antibiotic class administered to patient at your hospital.
- Must be given, not just ordered.
- Antibiotic reference available at www.mtqip.org > Resources > Education > Antibiotic Reference

0. None
1. Penicillin
2. Monobactam
3. Carbapenem
4. Macrolide
5. Lincosamide
6. Aminoglycoside
7. Quinolone
8. Sulfonamide
9. Tetracycline
10. Cephalosporin
11. Other

Collection Criterion: Collect on all patients with open fractures.

Def. Source: Orange Book

Data Base Column Name: MTQIP_ABX_TYPE1
Type of Field: Custom, Character (Numeric Output)
Length: 2

Report: #1

ANTIBIOTIC 2 TYPE

• Enter the second antibiotic class administered to patient at your hospital for patient's receiving combination therapy.
• Must be given, not just ordered.
• Antibiotic reference available at www.mtqip.org > Resources > Education > Antibiotic Reference

0. None
1. Penicillin
2. Monobactam
3. Carbapenem
4. Macrolide
5. Lincosamide
6. Aminoglycoside
7. Quinolone
8. Sulfonamide
9. Tetracycline
10. Cephalosporin
11. Other

Collection Criterion: Collect on all patients with open fractures.

Def. Source: Orange Book

Data Base Column Name: MTQIP_ABX_TYPE2
Type of Field: Custom, Character (Numeric Output)
Length: 2

Report: #1

ANTIBIOTIC DATE

• Date of administration to patient of first dose of antibiotic administered to patient at your hospital.
• Collected as MM/DD/YYYY.

Collection Criterion: Collect on all patients with open fractures.

Def. Source: Orange Book

Data Base Column Name: MTQIP_ABX_DATE
Type of Field: Date
Length:

Report: #1

ANTIBIOTIC TIME

• Time of administration to patient of first dose of antibiotic administered to patient at your hospital.
• Collected as HH:MM.

• HH:MM should be collected as military time.

Collection Criterion: Collect on all patients with open fractures.

Def. Source: Orange Book

Data Base Column Name:
Type of Field: Time
Length: 5

Report: #1

VENOUS THROMBOEMBOLISM

VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE
Type of first dose of VTE prophylaxis or treatment administered to patient at your hospital.

• Must be given, not just ordered.
• Capture heparin, LMWH, direct thrombin inhibitor and Xa inhibitor class agents regardless of the indication when it is administered first. Capture Coumadin and 'other' agents when the indication of VTE prevention is identified in the medical record capture.
• Do not include non-prophylactic dosing of agents, such as heparin administered for line clearance purposes.
• Please see drug reference for agents and dosing outside these parameters to determine class and/or indicated use.
• Venous Thromboembolism Prophylaxis Types which were retired greater than 2 years before the current NTDS version are no longer listed under Field Values above, which is why there are numbering gaps. Refer to the NTDS Change Log for a full list of retired Venous Thromboembolism Prophylaxis Types.

(1) Heparin
(6) LMWH (Dalteparin, Enoxaparin, etc.)
(7) Direct Thrombin Inhibitor (Dabigatran, etc.)
(8) Xa Inhibitor (Rivaroxaban, etc.)
(9) Coumadin
(10) Other
(5) None

Collection Criterion: Collect on all patients.

Def. Source: TQIP, MTQIP

Data Base Column Name: MTQIP_VTE_PROP_TYPE
Type of Field: Custom, Character (Numeric Output)
Length: 1

Report: #1

VENOUS THROMBOEMBOLISM PROPHYLAXIS DATE
Date of administration to patient of first prophylactic dose of heparin or other anticoagulants at your hospital.

• Collected as YYYY-MM-DD.
• Refers to date upon which patient first received the prophylactic agent indicated in VTE Prophylaxis Type field.
• The null value "Not Applicable" is used if VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE = "5 None".

Collection Criterion: Collect on all patients

Def. Source: TQIP

Data Base Column Name: MTQIP_VTE_PROP_DT

Type of Field: Custom, Date
Length: 8

Report: #1

VENOUS THROMBOEMBOLISM PROPHYLAXIS TIME
Time of administration to patient of first prophylactic dose of heparin or other anticoagulants at your hospital.

• Collected as HH:MM military time.
• Refers to time at which patient first received the prophylactic agent indicated in VTE TYPE field.
• The null value "Not Applicable" is used if VENOUS THROMBOEMBOLISM PROPHYLAXIS TYPE = "5 None".

Collection Criterion: Collect on all patients

Def. Source: TQIP

Data Base Column Name: MTQIP_VTE_PROP_TM
Type of Field: Custom, Character (Time Format)
Length: 5

Report: #1

HEMORRHAGE CONTROL

LOWEST ED SBP
Lowest sustained (>5 min) systolic blood pressure measured within the first hour of ED/hospital arrival.

• Refers to lowest sustained (>5 min) SBP in the ED/hospital of the index hospital that you consider valid, where index hospital is the hospital abstracting the data.
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Collection Criterion: Collect on all patients with transfused with packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

Data Base Column Name: MTQIP_L_ED_SBP
Type of Field: Numeric
Length: 3

Report: #1

TRANSFUSION BLOOD UNITS (0-4 HOURS)
Enter the total number of units of packed red blood cells administered within first 4 hours after ED/hospital arrival.

• Refers to amount of transfused packed red blood cells within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
• 1 unit PRBC = 350 mL.
• Count all units spiked, hung and initiated, even if not completely given
• For Cell Saver blood, every 500mL of blood re-infused into the patient will equal 1 unit of packed cells. If less than 250mL of Cell Saver blood is re-infused, enter 0.
• For autotransfuser blood, add the total volume administered during the variable time period and divide in half. For autotransfuser, every 350 mL of blood re-infused into the patient will equal 1 unit of packed cells the other half should be accounted for in plasma volume. If less than 175 mL of autotransfuser blood is re-infused, enter 0.
• If no blood was given, then units should be 0 (zero).
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If packed red blood cells are transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_PR_BC_4
Type of Field: Custom, Numeric
Length: 2

Report: #1

TRANSFUSION PLASMA UNITS (0-4 HOURS)

Enter the total number units of fresh-frozen plasma transfused within first 4 hours after ED/hospital arrival.

• Refers to amount of transfused fresh frozen or thawed plasma in units within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.
• 1 unit FFP = 150-250 mL.
• Count all units spiked, hung and initiated, even if not completely given.
• If no plasma was given, then the units should be 0 (zero).
• For autotransfuser blood, add the total volume administered during the variable time period and divide in half. For autotransfuser, every 200 mL of blood re-infused into the patient will equal 1 unit of plasma the other half should be accounted for in red blood cell volume. If less than 100 mL of autotransfuser blood is re-infused, enter 0.
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If plasma is transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: MTQIP
Data Base Column Name: MTQIP_FFP_4
Type of Field: Custom, Numeric
Length: 2

Report: #1

TRANSFUSION PLATELETS UNITS (0-4 HOURS)

Enter the total number of packs of platelets administered within first 4 hours after ED/hospital arrival.

• Refers to amount of transfused platelets in units within first 4 hours after arrival to index hospital where index hospital is the hospital abstracting the data.
• 1 pack PLT = 50 mL.
• Count all units spiked, hung and initiated, even if not completely given.
• If no platelets were given, then the units should be 0 (zero).
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If platelets are transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_PLT_4
Type of Field: Custom, Numeric
Length: 2

Report: #1

CRYOPRECIPITATE UNITS (0-4 HOURS)

Solution enriched with clotting factors (units). Enter the total number of units administered within first 4 hours after ED/hospital arrival. Refers to amount of transfused cryoprecipitate in units within first 4 hours after arrival to index hospital, where index hospital is the hospital abstracting the data.

- 1 unit = 10ml.
- Count all units spiked, hung and initiated, even if not completely given.
- This blood product can be pooled (grouped in batch with multiple single units).
- Report each unit when a pooled unit is listed.
- If no cryoprecipitate was given, then the units should be 0 (zero).
- If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
- If cryoprecipitate is transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: TQIP

Data Base Column Name: MTQIP_CRYO_4
Type of Field: Numeric
Length: 2

Report: #1

IV FLUID LITERS PRE-HOSPITAL and FIRST 4 HOURS (0-4 HOURS)

Enter the total number of liters of IV fluid administered starting from the time of injury through 4 hours after documented arrival time of first ED. Count all bags spiked and hung, even if not completely given. Exclude fluids provided for medication administration.

Calculation steps
1. Combine similar fluid types together (i.e. albumin combined with starch, and NS combined with LR)
2. Add the total mL administered for each fluid type over 4 hours
3. Round each total to the nearest one hundred
4. Covert mL to L (see table below)
5. Add the rounded total of each fluid type together to obtain final total volume for all fluids given

Crystalloid: Crystalloid IV fluids are solutions of mineral salts or other water-soluble molecules. Common crystalloid IV fluids include: normal saline and Lactated Ringer's, D5LR, D5W and PlasmaLyte. Examples provided in table below for rounding to the nearest 1,000.

Colloid: Colloid IV fluids contain insoluble molecules. Common colloids include: albumin, hydroxyethyl starch (Hespan, Voluven), gelofusine. Examples provided in table below for rounding.

Colloid		Crystalloid	
Hypertonic Saline (mL)	Albumin, Hydroxyethyl Starch, Other (mL)	Normal saline, Lactated Ringer's (mL)	MTQIP Volume (L)
0-124	0-249	0-499	0
125-249	250-499	500-999	1
250-374	500-749	1000-1499	1
375-499	750-999	1500-1999	2
500-624	1000-1249	2000-2499	2
625-749	1250-1499	2500-2999	3
750-874	1500-1749	3000-3499	3
875-999	1750-1999	3500-3999	4
1000-1124	2000-2249	4000-4499	4

1125-1249	2250-2499	4500-4999	5
1250-1374	2500-2749	5000-5499	5
1375-1499	2750-2999	5500-5999	6
1500-1624	3000-3249	6000-6499	6

Collection Criterion: Collect on all patients transfused with ≥ 5 units packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: MTQIP

Data Base Column Name: MTQIP_IVF_4
Type of Field: Custom, Numeric
Length: 2
Validation Range: +/- 1 L

Report: #1

TRANEXAMIC ACID ADMINISTRATION (0-24 HOURS)

Tranexamic acid (Cyklokapron, Lysteda) and aminocaproic acid (Amicar) are drugs that prevent clot breakdown (antifibrinolytic). Enter "YES" if patient received tranexamic or aminocaproic acid administration within 0-24 hrs after arrival to index hospital, where index hospital is the hospital abscracting the data. Capture if administered regardless of the indication for administration. Do not include topical route of administration.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_TXA
Type of Field: Yes/No
Length:

Report: #1

TRANEXAMIC ACID DATE (0-24 HOURS)

The date tranexamic acid was administered.

• Collected as MM/DD/YYYY.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_TXA_DT
Type of Field: Date
Length:

Report: #1

TRANEXAMIC ACID TIME (0-24 HOURS)

The time tranexamic acid was administered.

• Collected as HH:MM.
• HH:MM should be collected as military time.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_TXA_TM
Type of Field: Time
Length:

Report: #1

TRANSFUSION BLOOD UNITS (0-24 HOURS)

Enter the total number of units of packed red blood cells administered within first 24 hours after ED/hospital arrival.

• Refers to amount of transfused packed red blood cells in units within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data. Total for 24 hours includes packed red blood cells given during the first 4 hours.
• 1 unit PRBC = 350 mL.
• Count all units spiked, hung and initiated, even if not completely given.
• For Cell Saver blood, every 500mL of blood re-infused into the patient will equal 1 unit of packed cells. If less than 250mL of Cell Saver blood is re-infused, enter 0.
• For autotransfuser blood, add the total volume administered during the variable time period and divide in half. For autotransfuser, every 350 mL of blood re-infused into the patient will equal 1 unit of packed cells the other half should be accounted for in plasma volume. If less than 175 mL of autotransfuser blood is re-infused, enter 0.
• If no blood was given, then units should be 0 (zero).
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If packed red blood cells are transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_PR_BC_24
Type of Field: Custom, Numeric
Length: 2

Report: #1

TRANSFUSION PLASMA UNITS (0-24 HOURS)

Enter the total number units of fresh-frozen plasma administered within first 24 hours after ED/hospital arrival.

• Refers to amount of transfused fresh frozen or thawed plasma in units within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data. Total for 24 hours includes plasma given during the first 4 hours.
• 1 unit FFP = 150-250 mL.
• Count all units spiked, hung and initiated, even if not completely given.
• If no plasma was given, then the units should be 0 (zero).
• For autotransfuser blood, add the total volume administered during the variable time period and divide in half. For autotransfuser, every 200 mL of blood re-infused into the patient will equal 1 unit of plasma the other half should be accounted for in red blood cell volume. If less than 100 mL of autotransfuser blood is re-infused, enter 0.
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If plasma is transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_FFP_24
Type of Field: Custom, Numeric
Length: 2

Report: #1

TRANSFUSION PLATELETS UNITS (0-24 HOURS)

Enter the total number of packs of platelets administered within first 24 hours after ED/hospital arrival.

• Refers to amount of transfused platelets in milliliters (ml) within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data. Total for 24 hours includes platelets given during the first 4 hours.
• 1 pack PLT = 50 mL.
• Count all units spiked, hung and initiated, even if not completely given.
• If no platelets were given, then the units should be 0 (zero).
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If platelets are transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: MTQIP

Data Base Column Name: MTQIP_PLT_24
Type of Field: Custom, Numeric
Length: 2

Report: #1

CRYOPRECIPITATE UNITS (0-24 HOURS)

Solution enriched with clotting factors (units). Enter the total number of units administered within first 24 hours after ED/hospital arrival. Refers to amount of transfused cryoprecipitate in units within first 24 hours after arrival to index hospital, where index hospital is the hospital abstracting the data. Total for 24 hours includes cryoprecipitate given during the first 4 hours.

• 1 unit = 10ml.
• Count all units spiked, hung and initiated, even if not completely given.
• This blood product can be pooled (grouped in batch with multiple single units).
• Report each unit when a pooled unit is listed.
• If no cryoprecipitate was given, then the units should be 0 (zero).
• If converting a volume to a unit, the individual amounts should be used not aggregated sums of all product given to avoid marginal bias.
• If cryoprecipitate is transfusing upon patient arrival, count as 1 unit.

Collection Criterion: All patients.

Def. Source: TQIP

Data Base Column Name: MTQIP_CRYO_24
Type of Field: Numeric
Length: 2

Report: #1

IV FLUID LITERS IN FIRST 24 HOURS (0-24 HOURS)

Enter the total number of liters of IV fluid administered starting from the time of injury through 24 hours after documented arrival time of first ED. Count all bags spiked and hung, even if not completely given. Exclude fluids provided for medication administration.

Calculation steps
1. Combine similar fluid types together (i.e. albumin combined with starch, and NS combined with LR)
2. Add the total mL administered for each fluid type over 24 hours
3. Round each total to the nearest one hundred

4. Covert mL to L (see table below)
5. Add the rounded total of each fluid type together to obtain final total volume for all fluids given

Crystalloid: Crystalloid IV fluids are solutions of mineral salts or other water-soluble molecules. Common crystalloid IV fluids include: normal saline and Lactated Ringer's, D5LR, D5W and PlasmaLyte. Examples provided in table below for rounding to the nearest 1,000.

Colloid: Colloid IV fluids contain insoluble molecules. Common colloids include: albumin, hydroxyethyl starch (Hespan, Voluven), gelofusine. Examples provided in table below for rounding.

Colloid		Crystalloid	
Hypertonic Saline (mL)	Albumin, Hydroxyethyl Starch, Other (mL)	Normal saline, Lactated Ringer's (mL)	MTQIP Volume (L)
0-124	0-249	0-499	0
125-249	250-499	500-999	1
250-374	500-749	1000-1499	1
375-499	750-999	1500-1999	2
500-624	1000-1249	2000-2499	2
625-749	1250-1499	2500-2999	3
750-874	1500-1749	3000-3499	3
875-999	1750-1999	3500-3999	4
1000-1124	2000-2249	4000-4499	4
1125-1249	2250-2499	4500-4999	5
1250-1374	2500-2749	5000-5499	5
1375-1499	2750-2999	5500-5999	6
1500-1624	3000-3249	6000-6499	6

Collection Criterion: Collect on all patients transfused with $\geq$ 5 units packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: MTQIP
Data Base Column Name: MTQIP_IVF_24
Type of Field: Custom, Numeric
Length: 2
Validation Range: +/- 1 L

Report: #1

ANGIOGRAPHY

First angiogram with or without embolization within first 24 hours of ED/Hospital Arrival.

• Limit collection of angiography data to first 24 hours following ED/hospital arrival.
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.
• Excludes CTA.

(1) None
(2) Angiogram only
(3) Angiogram with embolization
(4) Angiogram with stent graft
(5) Angiogram with embolization and stent graft

Collection Criterion: Collect on all patients with transfused with packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

Data Base Column Name: MTQIP_ANGIO
Type of Field: Custom, Numeric
Length: 2

Report: #1

EMBOLIZATION SITE

Organ / site of embolization for hemorrhage control.

• The null value "Not Applicable" is used if the data field ANGIOGRAPHY = "1 None" or "2 Angiogram Only".
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.
• Check all that apply.

(1) Liver
(2) Spleen
(3) Kidneys
(4) Pelvic (iliac, gluteal, obturator)
(5) Retroperitoneum (lumbar, sacral)
(6) Peripheral vascular (neck, extremities)
(7) Aorta (thoracic or abdominal)
(8) Other

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

Data Base Column Name: MTQIP_EMB_SITE_L, MTQIP_EMB_SITE_S, MTQIP_EMB_SITE_K, MTQIP_EMB_SITE_P, MTQIP_EMB_SITE_R, MTQIP_EMB_SITE_NE, MTQIP_EMB_SITE_A
Type of Field: Custom, Logic for each region
Length: 2

Report: #1

ANGIOGRAPHY DATE

Date the first angiogram with or without embolization was performed.

• Collected as YYYY-MM-DD.
• The null value "Not Applicable" is used if the data field ANGIOGRAPHY = "1 None".
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

Data Base Column Name: MTQIP_ANGIO_DT
Type of Field: Custom, Date
Length: 8

Report: #1

ANGIOGRAPHY TIME

Time the first angiogram with or without embolization was performed.

• Collected as HH:MM military time.
• The null value "Not Applicable" is used if the data field ANGIOGRAPHY = "1 None".
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival

Def. Source: TQIP

Data Base Column Name: MTQIP_ANGIO_TM
Type of Field: Custom, Time
Length: 5
Validation Range: +/- 1 hour

Report: #1

SURGERY FOR HEMORRHAGE CONTROL TYPE

First type of surgery for hemorrhage control within the first 24 hours of ED/hospital arrival.

• If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
• The null value "Not Applicable" is used for patients that do not meet the collection criterion.
• Field Value “1. None” is used if Surgery for Hemorrhage Control Type is not a listed Field Value option.

(1) None
(2) Laparotomy
(3) Thoracotomy
(4) Sternotomy
(5) Extremity
(6) Neck
(7) Mangled extremity/traumatic amputation
(8) Other skin/soft tissue

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival.
Def. Source: TQIP

Data Base Column Name: MTQIP_SURG_TYPE_L, MTQIP_SURG_TYPE_T, MTQIP_SURG_TYPE_S, MTQIP_SURG_TYPE_E, MTQIP_SURG_TYPE_N, MTQIP_SURG_TYPE_A, MTQIP_SURG_TYPE_O
Type of Field: Custom, Logic for each operation
Length: 2

Report: #1

SURGERY FOR HEMORRHAGE CONTROL DATE

Date of first surgery for hemorrhage control within first 24 hours of ED/hospital arrival.

• Collected as YYYY-MM-DD.
• If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
• The null value "Not Applicable" is used if the data field SURGERY FOR HEMORRHAGE CONTROL TYPE = "1 None".
• The null value "Not Applicable" is used for patients that do not meet the collection criteria.

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

Data Base Column Name: MTQIP_SURG_DT

Type of Field: Custom, Date
Length: 8

Report: #1

SURGERY FOR HEMORRHAGE CONTROL TIME

Time of first surgery for hemorrhage control within first 24 hours of ED/hospital arrival.

• Collected as HH:MM military time.
• If unclear if surgery was for hemorrhage control, then consult TMD or operating/consulting/relevant surgeon.
• The null value "Not Applicable" is used if the data field SURGERY FOR HEMORRHAGE CONTROL TYPE = "1 None".
• The null value "Not Applicable" is used for patients that do not meet the collection criteria.

Collection Criterion: Collect on all patients with transfused packed red blood cells within first 4 hours after ED/hospital arrival.

Def. Source: TQIP

Data Base Column Name: MTQIP_SURG_TM
Type of Field: Custom, Time
Length: 5

Report: #1

WITHDRAWAL OF LIFE SUPPORTING TREATMENT

Treatment was withdrawn based on a decision to either remove or withhold further life sustaining intervention. This decision must be documented in the medical record and is often, but not always associated with a discussion with the legal next of kin.

• DNR not a requirement.
• A note to limit escalation of treatment qualifies as a withdrawal of life supporting treatment. These interventions are limited to: ventilator support
(with or without extubation), dialysis or other forms of renal support, institution of medications to support blood pressure or cardiac function, or a specific surgical, interventional or radiological procedure (e.g. decompressive craniectomy, operation for hemorrhage control, angiography). Note that this definition provides equal weight to the withdrawal of an intervention already in place (e.g. extubation) and a decision not to proceed with a life-saving intervention (e.g. intubation).
• Excludes the discontinuation of CPR and typically involves prior planning.
• DNR order is not the same as withdrawal of care.
• The field value 'No' should be used for patients whose time of death, according to your hospitals definition, was prior to the removal of any interventions or escalation of care.
• Includes brain dead patients where care is withdrawn in coordination with Gift of Life
• Includes patients changed to comfort care status, which may be documented in notes or orders

(1) Yes
(2) No

Collection Criterion: Collect on all patients.

Def. Source: TQIP

Data Base Column Name: MTQIP_WD_CARE
Type of Field: Custom, Yes/No
Length: 1

Report: #1

WITHDRAWAL OF LIFE SUPPORTING TREATMENT DATE

The date care was withdrawn.

• Collected as YYYY-MM-DD.
• The null value "Not Applicable" is used for patients where Withdrawal of Life Supporting Treatment is “2. No.”
• Record the time the first of any existing life-sustaining intervention(s) is withdrawn (e.g. extubation). If no intervention(s) is in place, record the time the decision not to proceed with a lifesaving intervention(s) occurs (e.g. intubation).

Collection Criterion: Collect on all patients.

Def. Source: TQIP

Data Base Column Name: MTQIP_WD_CARE_DT
Type of Field: Custom, Date
Length:

Report: #1

WITHDRAWAL OF LIFE SUPPORTING TREATMENT TIME

The time care was withdrawn.

• Collected as HH:MM military time.
• The null value "Not Applicable" is used for patients where Withdrawal of Life Supporting Treatment is “2. No.”
• Record the time the first of any existing life-sustaining intervention(s) is withdrawn (e.g. extubation). If no intervention(s) is in place, record the time the decision not to proceed with a lifesaving intervention(s) occurs (e.g. intubation).

Collection Criterion: Collect on all patients.

Def. Source: TQIP

Data Base Column Name: MTQIP_WD_CARE_TM
Type of Field: Custom, Time
Length:
Validation Range: +/- 6 hours

Report: #1

ORGAN DONATION REQUEST

Was organ donation requested?

Def. Source:

Data Base Column Name: ORG_STAT_YN
Type of Field: Character
Length: 1
Null: Registry Default

Report: #1

ORGANS PROCURED DATE/TIME

The date and time the organs were procured. Preference for capture of date/time of incision.

Def. Source:

Data Base Column Name: ORG_PROCURE_DATE, ORG_PROCURE_TIME
Type of Field: Character
Length:
Null: Registry Default

Report: #8

ORGAN PROCURED

The organ that was procured.

Def. Source:

Data Base Column Name: ORG_DNRS_L, ORG_DNRS_L_AS_TEXT
Type of Field: Character
Length:
Null: Registry Default

Report: #8

CHANGE HISTORY

3/16/10	Unplanned Intubation
4/28/10	First ED Temperature – Celsius from Fahrenheit.
4/28/10	First ED/Hospital GCS Eye (Eye) – Allow chart verbiage to be used in assigning GCS values.
4/28/10	First ED/Hospital GCS Verbal (Verbal) – Allow chart verbiage to be used in assigning GCS values.
4/28/10	First ED/Hospital GCS Motor (Motor) – Allow chart verbiage to be used in assigning GCS values.
4/28/10	ED/Hospital GCS Total (Cal'c GCS) – Allow chart verbiage to be used in assigning GCS values.
4/28/10	AIS – Preferred resource is AIS 2005.
4/28/10	Comorbidity - If no co-morbid conditions are present enter "No NTDS comorbidities are present". (NTDS 1)
4/28/10	Alcoholism – Determine based on brief screening tool.
4/28/10	Complication – Two digit NTDS code allowed.
4/28/10	Complication – Enter date complication recognized.
4/28/10	Deep Incisional SSI - If wound spontaneously opens as a result of infection, code for deep incisional SSI and wound disruption.
4/28/10	Unplanned Intubation - In patients who were intubated in the field, Emergency Department or other Hospital, or those intubated for their surgery, unplanned intubation occurs if they require reintubation after being extubated.
4/28/10	Cardiac Arrest Requiring CPR - Excludes patients that arrive at the hospital in full arrest.
4/28/10	Systemic Sepsis – Deleted anion gap information. Added: Sepsis with hypotension despite adequate fluid resuscitation combined with perfusion abnormalities that may include, but are not limited to, lactic acidosis, oliguria, or an acute alteration in mental status. Patients who are on inotropic or vasopressor agents may not be hypotensive at the time that perfusion abnormalities are measured.
8/9/10	Complication UTI – Deleted "postoperative" from definition description.
9/19/10	Complication Pneumonia – "Postoperative" changed to "pre-injury" in definition description.
9/19/10	Complication ARF – Deleted "postoperative". Changed "preoperative" to "pre-injury".
9/19/10	Acquired bleeding disorders – Added exclusion for coagulopathy of cirrhosis.
10/31/10	Complication DVT – Changed wording (should instead of must) and added clarification about what patients have a DVT. The patient should be treated with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava. Also include as a positive result, patients with deep vein thrombosis where the attending physician documents therapeutic anticoagulation contraindication due to bleeding risk. Do not include as a positive result, thrombosis of superficial veins of the upper or lower extremities, such as the cephalic or greater saphenous vein.
10/31/10	Complication Date – Variable and definition added.
12/12/10	Trauma Registry Inclusion Criteria – Added inclusion criteria and definition.
12/12/10	Trauma Center – Added codes and facility name for Detroit Receiving Hospital, Sparrow Hospital, Botsford Hospital, Covenant Hospital, Mount Clemons Regional Medical Center, Munson Hospital, Oakwood Hospital and Medical Center, Saint Mary's of Michigan, Saint Mary's Mercy Medical Center, and St. John Hospital and Medical Center
12/12/10	Age– Removed "Calculated age field from " and added "Patient's age at the time of injury (best approximation). "
12/12/10	Gender – Variable name changed from gender to sex. Deleted "Gender**:** Report the patient's gender as either:" and added "Sex**:** The patient's sex. "
12/12/10	Race – Removed "Report the patient's race as" and added "The patient's race. Patient race should be based upon self-report or identified by a family member. The maximum number of races that may be reported for an individual patient is 2." Deleted Hispanic and not available.
12/12/10	Injury Date – Added "Estimates of date of injury should be based upon report by patient, witness, family, or health care provider. Other proxy measures (e.g., 911 call time) should not be used."
12/12/10	Injury Time – Added "Estimates of time of injury should be based upon report by patient, witness, family, or health care provider. Other proxy measures (e.g., 911 call time) should not be used."
12/12/10	Primary E-code – Deleted "Relevant ICD-9-CM E-code value for the injury event." and added "The Primary E-code should describe the main reason a patient is admitted to the hospital. E-codes are used to auto-generate two calculated fields: Trauma Type (Blunt, Penetrating, Burn) and Intentionality (based upon CDC matrix). ICD-9-CM Codes were retained over ICD-10 due to CMS's continued use of ICD-9. Activity codes should not be reported in this field."

12/12/10 First ED HR – Deleted “Enter first recorded systolic blood pressure in the TQIP accepting ED/hospital.” and added “First recorded pulse in the TQIP ED/hospital (palpated or auscultated), expressed as a number per minute.”

12/12/10 GCS Assess Qualifier – Deleted “Document factors potentially affecting the first assessment of GCS upon arrival to TQIP center.” and “(1) Legitimate value, (2) Chemically sedated, (4) Intubated and chemically paralyzed.” Added “Documentation of factors potentially affecting the first assessment of GCS upon arrival in the ED/hospital. Identifies treatments given to the patient that may affect the first assessment of GCS. This field does not apply to self-medications the patient may administer (i.e., ETOH, prescriptions, etc.).” “(1) Patient Chemically Sedated, (2) Obstruction to the Patient’s Eye, (4) Valid GCS: Patient was not sedated, not intubated, and did not have obstruction to eye”

12/12/10 ED Discharge Disposition – Added definition “The disposition of the patient at the time of discharge from the ED.” Deleted the choice “DOA”. Added the following choices: Observation unit, Telemetry/step-down unit, Home with services, Other, Home without services, Left against medical advice, and Transferred to another hospital.

12/12/10 Signs of Life – Added variable. Added definition “Indication of whether patient arrived at ED/Hospital with signs of life. A patient with no signs of life is defined as having none of the following: organized EKG activity, pupillary responses, spontaneous respiratory attempts or movement, and unassisted blood pressure. This usually implies the patient was brought to the ED with CPR in progress.” Added the following choices: arrived with NO signs of life or arrive with signs of life.

12/12/10 ICD-9-CM Code – Added definition “Diagnoses related to all identified injuries. Injury diagnoses as defined by (ICD-9-CM) codes (code range: 800-959.9). The maximum number of diagnoses that may be reported for an individual patient is 50.”

12/12/10 AIS – Added definition “The Abbreviated Injury Scale (AIS) severity codes that reflect the patient’s injuries.” AIS 2005 became required resource. Added list of severity codes.

12/13/10 Comorbidy – Added “The value "Not Applicable" should be used for patients with no known co-morbid conditions”

12/13/10 Current Smoker – Added variable and definition.

12/13/10 Diabetes Mellitus – Combined variable diabetes mellitus requiring therapy with insulin and diabetes mellitus requiring therapy with oral hypoglycemic to one variable.

12/13/10 Functionally Dependent Health Status – Added variable and definition.

12/13/10 Obesity – Added variable, definition, and chart.

12/13/10 Respiratory Disease – Deleted “History of Severe COPD” component of variable. Added diffuse interstitial fibrosis and sarcoidosis to definition.

12/13/10 Ascites within 30 Days – Added variable and definition.

12/13/10 Cirrhosis – Changed variable name from “Docmented History of Cirrhosis/Ascites.”

12/13/10 Esophageal Varices – Removed “gastric” from variable and definition.

12/13/10 History of Angina within past 1 month – Added variable and definition.

12/13/10 History of MI within past 6 months – Added “within 6 months” to variable and definition.

12/13/10 History of Revascularization / Amputation for PVD – Added variable and definition.

12/13/10 History of atrial fibrillation – Deleted variable.

12/13/10 Currently Requiring or on Dialysis – Changed variable name from chronic renal failure requiring dialysis.

12/13/10 History of Seizure Disorder – Deleted variable.

12/13/10 Pregnancy – Deleted variable.

12/13/10 Congenital Anomalies – Added variable and definition.

12/13/10 Prematurity – Added variable and definition.

12/13/10 Other – Added variable and definition.

12/13/10 Hospital Procedures / Operation ICD-9 Code – Expanded definition of procedures to be captured and provided list.

12/13/10 Laboratory Data – Deleted variables for admission platelet count, PTT, and INR.

12/13/10 Primary Method of Payment – Added variable and definition.

12/13/10 Wound Disruption – Deleted variable and definition.

12/13/10 Abdominal Fascia Left Open – Deleted variable and definition.

12/13/10 Abdominal Compartment Syndrome – Deleted variable and definition.

12/13/10 Enterocutaneous Fistula/ GI Leak – Deleted variable and definition.

12/13/10 C.Diff Colitis – Deleted variable and definition.

12/19/10 Drug or Alcohol Withdrawal Syndrome – Added variable and definition.

12/19/10 Systemic Sepsis – Variable name change to Severe Sepsis.

12/19/10 Graft/Prosthesis/Flap Failure - Added variable and definition.

12/19/10 Catheter-Related Blood Stream Infection - Added variable and definition.

12/19/10	Osteomyelitis - Added variable and definition.
12/19/10	Unplanned Return to the OR - Added variable and definition.
12/19/10	Unplanned Returb to the ICU - Added variable and definition.
12/19/10	Other - Added variable and definition.
12/19/10	UTI – Deleted criteria 2.
12/19/10	UTI – Deleted frequency from criteria 1 and added WBC > 100,000 or < 3000 per cubic millimeter.
12/19/10	Myocardial Infarction – Deleted “transmural”.
1/19/11	Functionally Dependent Health Status – Deleted phrasing with “or” referring to equipment, devices or another person.
1/19/11	Complication Other – Definition of when to use “Not applicable” added.
1/31/11	Obesity – Changed from BMI 30 or > to BMI 40 or > per NTDS 2011
1/31/11	Signs of Life – Option instructions added for software that have not added this variable.
2/15/11	Procedures – Deleted procedures to coincide with NTDS 2011.
2/28/11	UTI – Word symptomatic removed.
3/6/11	Abd Fascia Left Open, Wound Disruption, C.difficle Colitis, Enterocutaneous Fistula, Abdominal Compartment Syndrome – Returned to definitions.
3/13/11	Process Measures – Added variables for TBI and VTE.
3/15/11	Primary Method of Payment updated
3/15/11	Marquette code changed from MA to MG
4/1/11	Respiratory Disease – Changed to NTDS 2011 for consistency.
5/1/11	Process Measures – Revised for TBI.
12/31/11	Pre-hospital cardiac arrest with CPR – Deleted from pre-hospital section. Added to comorbidities section.
12/31/11	Hospital Procedures – Added asterisk to Diagnostic ultrasound (includes FAST), Insertion of ICP monitor, Ventriculostomy
12/31/11	Hospital Procedure Start Time – Add sentence ” If distinct procedures with the same procedure code are performed, their start times must be different.”
12/31/11	Congestive Heart Failure – Added requirement for associated symptoms documented 30 days prior to injury
12/31/11	Current Smoker – Removed the 1 year history of use requirement
12/31/11	Currently Requiring or on Dialysis – Variable name change to Chronic Renal Failure and removal of inclusion of ultrafiltration
12/31/11	DNR Status – Variable name change to Advanced Directive Limiting Care
12/31/11	Esophageal Varices – Removed phrasing requiring identification prior to injury
12/31/11	Obesity – BMI criteria decreased from 40 to 30
12/31/11	Steroid Use – Deleted exclusion of patients who receive short course steroids (< 10 day course)
12/31/11	Dementia – Variable and definition added
12/31/11	Major Psychiatric Illness – Variable and definition added
12/31/11	Drug Abuse or Dependence – Variable and definition added
12/31/11	Total ICU Length of Stay – Add example table and clause that LOS unable to be calculated if data missing
12/31/11	Total Ventilator Days – Add example table and clause that LOS unable to be calculated if data missing
12/31/11	Discharge Date – Name change to Hospital Discharge Date and added if ED Disposition = 4, 5, 6, 9, 10, 11 then output should be NA
12/31/11	Discharge Time – Name change to Hospital Discharge Time and added if ED Disposition = 4, 5, 6, 9, 10, 11 then output should be NA
12/31/11	Hospital Discharge Disposition – Added definitions for ICF, Home Health Services, Hospice, and Skilled Nursing Care
12/31/11	Acute Renal Failure Requiring Dialysis – Name change to Acute Kidney Injury
12/31/11	ARDS – Name changed to ALI/ARDS. Parameters increased from PaO2/FiO2 of $\leq$ 200 to < 300. Removed 36 hour requirement for persistence.
12/31/11	Extremity Compartment Syndrome – Definition changed to capture only cases where late diagnosis/threat to limb
12/31/11	Myocardial Infarction – Deleted requirement for manifestation of Q waves post MI
12/31/11	Unplanned Intubation – Added “patients who were intubated in the field or Emergency Department, or those intubated for surgery, unplanned intubation occurs if they require reintubation > 24 hours after extubation”
12/31/11	UTI – Criteria 1: frequency returned to definition and temperature requirement decreased from 38.5C to 38. Criteria 2: entire option added back for consistency.

12/31/11	Catheter-Related Blood Stream Infection: Deleted 48 culture requirement. Added criterion 3 for patients < 1 year.
12/31/11	Severe Sepsis – Deleted criterion for tachycardia and tachypnea. Increased requirement for immature bands from 10% to 20%.
12/31/11	Process Measures – Output for measures not received changed from “leave blank” to “code as NA”
12/31/11	VTE Thromboembolism Prophylaxis Type: changed from 1: Heparin, 2:LMWH, 3:None to 1: Heparin, 2: Lovenox, 3: Fragmin, 4: Other LMWH, 5: None
12/31/11	GCS Assessment Qualifier Component of Highest GCS Total: Previously 1. S=Patient chemically sedated or paralyzed, 2. T=Obstruction to the patient’s eye, 3. TP=Patient is intubated, 4. L=Valid GCS” patient was note sedated, not intubated, and did not have obstruction to eye.
12/31/11	Traumactr: Deleted column for reports 1,2,3,4,5,6. Continue to use as center file name identifier
12/31/11	Factor 7a Total – Variable deleted
12/31/11	CRBSI – Added “and” before signs and symptoms component. Add “or” between each of the criteria options.
12/31/11	C.difficile – Deleted incorrect NTDS complication code 11. Added identifier as a custom data point ().
12/31/11	Direct Thrombin Inhibitor – Added to medications.
12/31/11	Bleeding Disorder – Added Pradaxa to medication list.
12/31/11	GCS Assessment Qualifier Component of Highest GCS Total: Added options available on upcoming new MTQIP tab anticipated early 2012.
2/22/12	Factor Xa Inhibitor – Added to medications
2/22/12	Bleeding Disorder – Added Xarelto to medication list.
2/22/12	TBI Process Measures: Highest GCS Total, GCS Motor Highest, GCS Assessment Qualifier of Highest GCS Total, Cerebral Monitor, Cerebral Monitor Date/Time – Deleted capture criteria. Pg 41-44
1/1/13	Trauma Registry Inclusion Criteria – Addition of ICD 10 code injuries
1/1/13	Race – Hispanic option returned
1/1/13	Sex – Deleted option 3 for not available/not known/not recorded
1/1/13	Primary E-Code – Deleted “ICD-9 codes retained over ICD-10 codes” verbiage and addition of “ICD-9 and ICD-10 codes will be accepted”
1/1/13	Protective Devices – Variable and definition added to MTQIP
1/1/13	Initial ED/Hospital Systolic Blood Pressure, Pulse, Temperature, and all GCS elements – Addition of phase “within 30 min or less” and addition of phrase “vitals do not need to be from the same assessment”
1/1/13	GCS Qualifiers – One to many outputs deleted and one to one outputs, which are current registry options kept
1/1/13	Signs of Life – Removed variable for MTQIP data dictionary
1/1/13	Operation – Definition returned to dictionary
1/1/13	Emergency Operation – Addition of ASA criteria as option for capture
1/1/13	Hospital Procedures – Addition of ICD-10 as option and addition of Transfusions
1/1/13	Pre-Hospital CPR – Addition of “with resuscitative efforts by healthcare provider” to definition name
1/1/13	ICD-9-CM Code – Addition of “or ICD-10-CM code” phrase
1/1/13	AIS Severity – Addition of format example with pre-dot and post-dot in a single field
1/1/13	Deep Surgical Site Infection – Addition of Phrase under #2 “A culture-negative finding does not meet this criterion”
1/1/13	Unplanned Intubation – Deleted phrase “intubation followed by extubation the same day for a planned operative intervention is not considered an unplanned intubation”
1/1/13	Acute Kidney Injury – Addition of GFR and urine output to criteria
1/1/13	Urinary Tract Infection – Criteria #1 temperature changed from >38 to ≥38 degrees, WBC changed from >100,000 to >10,000
1/1/13	C. Diff – Deleted WBC criteria and added options for histopathologic or colonoscopic findings
1/1/13	Catheter Related Blood Stream Infection – Change criteria #2 from WBC > 100,000 to WBC > 10,000 and addition of phase that criteria 1 & 2 can be used for patients of any age
1/1/13	Deep Vein Thrombosis – Delete thrombophlebitis from variable name
1/1/13	TBI Process Measures (All) – Addition of capture criteria of “Collect on patients with at least one injury in AIS head region”
1/1/13	Reason Cerebral Monitor Withheld – Deleted 8 hour criteria from decision to withhold life sustaining measures
1/1/13	VTE Type – Regrouped agents based on class
1/1/13	VTE Date – Change verbiage to include all VTE agents captured under VTE type
1/1/13	Lowest ED Systolic Blood Pressure, Transfusion Blood Units (4 hours), Transfusion Plasma Units (4 hours), Transfusion Platelets Units (4 hours), Cryoprecipitate Units, (4 hours), Angiography, Embolization

	Site, Angiography Date, Angiography Time, Surgery for Hemorrhage Control Type, Surgery for Hemorrhage Control Date, Surgery for Hemorrhage Control Time, Withdrawal of Care Date, Withdrawal of Care Time - Addition of variables and definitions. Note blood for TQIP is captured in measure of volume. Enter blood in measure of units and this can be converted to volume measure.
1/1/13	ED/Transport PRBC, PRBC Total, FFP Total, Platelets Total – Variables removed
1/1/13	Reason Cerebral Monitor Withheld, Beta Blocker for TBI Process Measure – Changed capture criterion to of "Collect on patients with at least one injury in AIS head region"
1/1/13	Tranexamic Acid Administration, Date, Time – Added variables and definitions
1/1/13	Case Number – Changed column name for reports to TRAUMA_NUM for all reports
1/1/13	Trauma Center – removed from reports
1/1/13	C.diff – Changed variable requirement for diarrhea to be present on path and colonoscopy.
1/14/13	Surgery for Hemorrhage Control Type – Deleted phrase "Multiple sites are possible." Deleted phrase "No choice should be duplicated." Added word "first" before type to allow for only one selection.
3/15/13	Hemorrhage Control Process Measures Blood (Blood 4hrs, Plasma 4hrs, Platelets 4hrs, Cryo 4hrs, TXA 24hr, TXA Date, TXA Time, Blood 24hrs, Plasma 24hrs, Platelets 24hrs, Cryo 24hrs) – Deleted "Collection Criterion: Collect on all patients with transfusion blood within first 4 hours after ED/hospital arrival. Added "Collection Criterion: All patients."
4/18/13	GCS Motor Component of Highest GCS Total: Added phrase "Please code as 'Not Applicable' if patient does not meet collection criterion." to be consistent with TQIP change.
4/18/13	Cerebral Monitor: Added phrase "Please code as 'Not Applicable' if patient does not meet collection criterion." to be consistent with TQIP change.
4/18/13	Cerebral Monitor Date: Added phrase "Please code as 'Not Applicable' if patient does not meet collection criterion."
4/18/13	Cerebral Monitor Time: Added phase "Please code as 'Not Applicable' if patient does not meet collection criterion."
4/18/13	Lowest ED/Hospital Systolic Blood Pressure: Added requirement for measurement within first hour.
4/18/13	Angio/Hemorrhage Control Measures: Added phrase to code as 'Not Applicable'.
1/1/14	Hematocrit – Changed from first measured at MTQIP ED/hospital to first measured at MTQIP hospital
1/1/14	Trauma Surgeon – Variable added
1/1/14	Acute Renal Insufficiency – Variable added
1/1/14	IV Fluid 0-4 Hours – Variable added
1/1/14	IV Fluid 0-24 Hours – Variable added
1/1/14	Reason Cerebral Monitor Withheld – Added options #6 and #7 to pick list. Added "AND highest total GCS $\leq$ 8" to collection criteria
3/1/14	VTE Type – Deleted "oral" from "oral Xa inhibitor"
3/1/14	IV Fluid (0-4) and (0-24) – Removed previous verbiage indicating clock starting at first ED. Added verbiage indicating capture time from time of injury through 4 and 24 hours after first ED arrival time.
1/1/15	Formatting – Blue font added to identify MTQIP specific variables, verbiage, or clarifications.
1/1/15	Patient Inclusion Criteria – Change to title from "Trauma Registry Inclusion Criteria." Addition of ICD-10 character modifiers.
1/1/15	Trauma Center – Addition of MidMichigan two letter identifier of MI.
1/1/15	Activation Level – Variable and definition added.
1/1/15	Date Arrival/Admit TQIP Institution – Variable name change to "ED/Hospital Arrival Date"
1/1/15	Time Arrival/Admit TQIP Insitution – Variable name change to "ED/Hospital Arrival Time"
1/1/15	Initial ED/Hospital Height – Variable and definition added.
1/1/15	Initial ED/Hospital Weight – Variable and definition added.
1/1/15	ED Discharge Date - Variable and definition added.
1/1/15	ED Discharge Time - Variable and definition added.
1/1/15	Intubation Status – Definition updated to include King airway capture.
1/1/15	Operation – Verbiage updated to clarify meaning "Also answer "YES" if"
1/1/15	Emergency Operation – Retired 12 hour criteria for capture. Capture deferred to ASA criteria.
1/1/15	Procedures – NTDS removed criteria for coding capture for transfusion of greater than 10 units of blood.
1/1/15	Alcohol Use Disorder – Variable name changed.
1/1/15	Drug Use Disorder – Variable name changed. Added clarification for marijuana.
1/1/15	Current Smoker – Added clarification for exclusion of e-cigarettes.
1/1/15	Functionally Dependent Health Status – Definition updated removing verbiage describing partially and totally dependent. This removed the "and" operator. Current definition dependent upon equipment, devices "or" another person.
1/1/15	Esophageal Varices – Retired.

1/1/15 Obesity – Retired.
1/1/15 Ascites within 30 Days – Retired.
1/1/15 Pre-Hospital Cardiac Arrest – Retired in co-morbid. Added to Pre-Hospital. Definition verbiage change.
1/1/15 Respiratory Disease – Variable name changed to Chronic Obstructive Pulmonary Disease (COPD).
1/1/15 History of Angina within 1 Month – Variable name changed to History of Angina within 30 Days. Description of angina updated.
1/1/15 CVA with Neuro Deficit – Variable name changed to Cerebrovascular Accident (CVA).
1/1/15 Plavix – Definition clarified to include Pletal (cilostazol).
1/1/15 ADD/ADHD – Variable and definition added.
1/1/15 Major Psychiatric Illness - Addition of ICD-9 and ICD-10 CM Code Ranges for clarification.
1/1/15 Primary Method of Payment – Verbiage added continuing current capture method. Clarification regarding vendor mapping for non-MTQIP submissions added.
1/1/15 Complications – Definition of "stay" clarified. Example added.
1/1/15 ALI/ARDS – Variable name changed to ARDS. Definition criteria changed.
1/1/15 Acute Kidney Injury – Definition criteria changed.
1/1/15 Cardiac Arrest with CPR – Definition and criteria updated to including capture of date and location.
1/1/15 DVT – Variable name changed to DVT/thrombophlebitis.
1/1/15 Abdominal Compartment Syndrome – Retired verbiage "Answer "NO" if abdomen was left open and did not require reopening for revision of the temporary closure for abdominal compartment syndrome.
1/1/15 ECF/GI Leak – Variable name clarified to ECF or GI leak and verbiage updated to remove open abdominal fascia option.
1/1/15 Unplanned Return to ICU – Definition criteria clarified for patient's location history.
1/1/15 Cerebral Monitor, Date, Time – Added verbiage for capture when placed at referring facility. Added option for (5) None.
1/1/15 Antibiotic Days – Variable and definition added.
1/1/15 Lowest ED SBP – Addition of verbiage for clarification of the word sustained to include "that you consider valid" to avoid capture of clearly aberrant values
1/1/15 Blood, Plasma (0-4), (0-24) – Added verbiage to account for autotransfuser blood.
1/1/15 IV Fluid (0-4), (0-24) – Added verbiage for capture of all units spiked and hung.
1/1/15 TXA Date – Updated format for current submission format being received.
1/1/15 Antibiotic Days – Clarified route of administration
1/1/15 Angiograph – Changed interval from 48 hours to 24 hours for capture
1/1/15 Unplanned Return to ICU – Variable name change to Unplanned Admission to ICU. Changed verbiage from "readmitted" to "admitted" in first line.
4/3/15 Cardiac Arrest with CPR – Removed verbiage that indicated "Were pulseless but did not receive defibrillation attempts or CPR by hospital personnel.
7/1/15 Antibiotic Days – All routes deleted except IV administration
7/1/15 IV Fluid 0-4, 0-24 hours – Capture criteria updated to only capture this variable on patients who receive $\underline{\geq}$ 5 units PRBC within 4 hours of ED/Hospital arrival. Definition clarified to exclude fluids provided for medication administration.
1/1/16 Provider Arrival Date – Variable added
1/1/16 Provider Arrival Time – Variable added
1/1/16 Elapsed Minutes from ED Arrival to Provider Arrival – Variable added
1/1/16 Transport Mode – Variable added
1/1/16 Service Performing Operative Procedure – Variable added
1/1/16 Elapsed Time ED Arrival to Procedure Start – Variable added
1/1/16 Organ Donation Request – Variable added
1/1/16 Organs Procured Date/Time – Variables added
1/1/16 Organ Procured – Variable added
1/1/16 Trauma Center – VH added for Providence Hospital and LM added for St. Mary's Livonia (acceptance pending)
1/1/16 Ethnicity – Variable added
1/1/16 Activation level – Addition of second column capture to allow vendors to map as well as provide raw data
1/1/16 Initial ED/Hospital Systolic Blood Pressure – Addition of verbiage
1/1/16 Initial ED/Hospital Pulse – Addition of verbiage
1/1/16 Initial ED/Hospital GCS-Total – Deleted verbiage
1/1/16 ED Discharge Date – Verbiage changed to blue font "The date the patient was discharged from the ED." Addition of verbiage "If ED Discharge Disposition is 5 Deceased/Expired, then ED Discharge Date is the date of date as indicated on the patient's death certificate.

1/1/16	ED Discharge Time - Addition of verbiage “If ED Discharge Disposition is 5 Deceased/Expired, then ED Discharge Date is the date of date as indicated on the patient’s death certificate.
1/1/16	Trauma Surgeon – Verbiage added for capture of name with NPI for ID.
1/1/16	Hospital Discharge Date - Verbiage changed to blue font “The date the patient was discharged from the hospital.” Addition of verbiage “If Hospital Discharge Disposition is 5 Deceased/Expired, then the Hospital Discharge Date is the date of death as indicated on the patient’s death certificate.”
1/1/16	Hospital Discharge Time - Verbiage changed to blue font “The time the patient was discharged from the hospital.” Addition of verbiage “If Hospital Discharge Disposition is 5 Deceased/Expired, then the Hospital Discharge Time is the date of death as indicated on the patient’s death certificate.”
1/1/16	Hospital Discharge Disposition – Clarification for capture of subacute as rehab disposition. Clarification for capture of LTAC or Select as Long Term Care Hospital. Clarification for capture of Extended Care Facility as Other or SNF.
1/1/16	Hospital Complications – Addition of verbiage For all Hospital Complications that follow the CDC definition [e.g., VAP, CAUTI, CLABSI, Osteomyelitis] always use the most recent definition provided by the CDC.
1/1/16	TBI Process Measure, GCS Motor Component of Highest GCS Total – Portion of title changed to blue font “GCS Motor Component”
1/1/16	Initial ED/Hospital Pupillary Response – Variable added
1/1/16	Midline Shift – Variable added
1/1/16	Cerebral Monitor – Verbiage added for capture in those patients with TBI indication for placement.
1/1/16	Blood, Plasma, Platelets, Cryoprecipitate (0-4) and (0-24)- Verbiage added “Count all units spiked, hung and initiated, even if not completely given.” Verbiage added if blood product transfusion upon patient arrival, count as 1 unit.
1/1/16	Surgery for Hemorrhage Control Type – Option added for “Other skin/soft tissue”
1/1/16	Alcohol Use Disorder – Variable name changed to blue font
1/1/16	Chronic Obstructive Pulmonary Disease (COPD) – Deleted verbiage “chronic asthma; cystic fibrosis”
1/1/16	Chronic Renal Failure – Addition and blue font applied to word “Current” to indicate a patient who currently has renal failure. Deleted verbiage “Excludes Transplant Patients.”
1/1/16	Current Smoker – Addition of verbiage “within the last 12 months”
1/1/16	Dementia – Reworded “Documentation in the patient’s medical record of dementia including senile or vascular dementia (e.g. Alzheimer’s).”
1/1/16	Drug Use Disorder - Variable name changed to blue font
1/1/16	Acute Kidney Injury – Deleted verbiage in title “(with DIALYSIS)”
1/1/16	Urinary Tract Infection – Variable removed
1/1/16	Catheter-Associated Urinary Tract Infection – Variable added
1/1/16	Catheter Related Blood Stream Infection – Variable removed
1/1/16	Central Line Associated Bloodstream Infection – Variable added
1/1/16	Decubitus Ulcer – Verbiage added “Deeper tissues may or may not be involved.”
1/1/16	Deep Incisional Surgical Site Infection – Verbiage added to clarify DIP and DIS.
1/1/16	Deep Vein Thrombosis (DVT) – Deleted “Thrombophlebitis” from variable name
1/1/16	Osteomyelitis – Definition updated to reflect CDC definition.
1/1/16	Pneumonia – Criteria 3 added to also capture this if VAP is being captured.
1/1/16	Ventilator-Associated Pneumonia - Definition updated to reflect CDC definition.
1/1/16	ICD-9 and ICD-10 Hospital Procedures – Added verbiage “The null value “Not Applicable” is used if not coding ICD-9.”
1/1/16	Initial ED/Hospital Systolic Blood Pressure – Added verbiage “If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no BP is ever able to be obtained then capture BP as 0.”
1/1/16	Initial ED/Hospital Pulse – Added verbiage “If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival, and no pulse is ever able to be obtained then capture pulse as 0.
1/1/16	Initial ED/Hospital GCS-Eye, Verbal, Motor, Total – Added verbiage “If the patient has a cardiopulmonary arrest prior to arrival or within 15 minutes of arrival and no GCS is ever able to be obtained then capture as GCS 1 for eye, verbal, and motor, and 3 for total.
1/1/16	Total ICU Length of Stay – Added verbiage “If the documentation reflects a patient is receiving ICU care in a non-ICU setting due to bed availability issues then capture as an ICU day.”
1/1/16	Antibiotic Days – Added clarification for capture of antibiotics administered at the index hospital.
1/1/16	IV Fluid – Added clarification for capture of D5LR and D5W as crystalloid fluids.
1/1/16	Acute Renal Insufficiency – Updated the reference to Acute Renal Injury to reflect the updated variable name indicated above

1/1/16	ED Discharge Disposition – Added second column for reporting variable with vendor mapping
1/1/16	Tranexamic Acid Administration – Added clarification for inclusion of aminocaproic acid
1/1/16	Abdominal Fascia Left Open – Removed verbiage ". No primary surgical closure of the fascia, or intra-abdominal packs left at conclusion of primary laparotomy (damage control)" to improve clarity
1/1/16	Withdrawal of Care –Added clarification for inclusion of Gift of Life patients
1/1/16	Acute Kidney Injury – definition reverted to 2014
1/1/16	Age – Added verbiage for standardized capture as age 50 when no age identified in the documentation
1/1/16	VTE Prophylaxis Type – Added clarification for indications and dosing.
1/1/16	Procedures – Added double asterisk to TPN indicated required capture
5/1/16	PRQ Variables – Added red color identifiers to variables specific for the PRQ online reporting that will not be validated. If validation is requested in the future, then a notification will be provided and the change log updated.
5/13/16	Trauma Center – Name updated at center request for VH and MM.
1/1/17	Patient Inclusion Criteria – Retired ICD-9 criteria.
1/1/17	Case Number – Deleted reference to NTRACS version.
1/1/17	Trauma Center – Updated center names for Beaumont facilities. Updated reporting for CDM portal.
1/1/17	Race – Added bullet to select all that apply.
1/1/17	ICD-9 Primary External Cause Code – Retired variable.
1/1/17	Transport Mode – Added variable for interfacility variable that is being used by DI centers with mode.
1/1/17	Activation Level – Added pick options.
1/1/17	Initial ED/Hospital GCS-Eye – Added appropriate chart verbiage for GCS component.
1/1/17	Initial ED/Hospital GCS-Verbal – Added appropriate chart verbiage for GCS component.
1/1/17	Initial ED/Hospital GCS Assessment Qualifiers – Corrected text to reflect correct modifier when patient has received neuromuscular blockade.
1/1/17	Initial ED/Hospital Weight – Verbiage updated.
1/1/17	Intubation Status – Clarified verbiage for capture of Hi-Lo endotracheal tubes.
1/1/17	ETOH – Variable renamed to Alcohol Screen Results and associated NTDS verbiage added.
1/1/17	Hematocrit – Retired.
1/1/17	Admit Service – Added standardized picklist.
1/1/17	Trauma Surgeon – Clarified reporting for vendors.
1/1/17	ICD-9 Hospital Procedures – Retired variable.
1/1/17	ICD-10 Hospital Procedures – Retired select verbiage indicating to submit procedures that center had captured and that not all hospitals submit all provided procedures. Specified CT capture by body region. Deleted echocardiography, cystogram, urethrogram, central venous catheter, pulmonary artery catheter, cardiac output monitoring. Added REBOA. Verbiage added to exclude intubations performed in the OR.
1/1/17	Comorbidities – Verbiage added indicating comorbidities should be submitted using numeric or alpha-numeric code under each variable.
1/1/17	Advanced Directive Limiting Care – Verbiage updated.
1/1/17	Drug Use Disorder – Variable name changed to Substance Abuse Disorder. Added new NTDS code.
1/1/17	COPD – Verbiage updated.
1/1/17	History of Angina – Variable name changed to Angina Pectoris. Added new NTDS code. Added new definition verbiage.
1/1/17	History of Myocardial Infarction - Variable name changed to Myocardial Infarction. Added new NTDS code.
1/1/17	History of Peripheral Vascular Disease – Retired
1/1/17	Peripheral Arterial Disease – Added variable and definition. Added new NTDS code.
1/1/17	Hypertension Requiring Rx – Transition of prescription requirement to blue font.
1/1/17	Chronic Renal Failure – Deleted "Current acute or" verbiage.
1/1/17	ADD/ADHD – Updated verbiage.
1/1/17	Major Psychiatric Illness – Variable name changed to Mental/Personality Disorder. Added new NTDS code. Deleted the descriptor of "major" associated with depressive disorder.
1/1/17	Anticoagulant Therapy – Added new variable and definition. Added new NTDS code.
1/1/17	Bleeding Disorder – Deleted verbiage relating to blood clotting abnormalities induced by drugs.
1/1/17	Plavix – Added capture for Brilinta (ticagrelor).
1/1/17	Factor Xa Inhibitor – Added capture for Savaysa (endoxaban).
1/1/17	ICD-9 Injury Diagnoses- Retired variable.
1/1/17	Total ICU Length of Stay – Added verbiage indicating that the null should be Not Known/Not Recorded if dates are missing.
1/1/17	Total Ventilator Days – Added verbiage indicating that the null should be Not Known/Not Recorded if

dates are missing.

1/1/17 Hospital Discharge Disposition – Added verbiage notifying of numbering gaps related to retired variables.

1/1/17 Discharge Service – Added standardized picklist.

1/1/17 Hospital Complications - Added verbiage notifying of numbering gaps related to retired variables.

1/1/17 Complication Code – Verbiage added indicating comorbidities should be submitted using numeric or alpha-numeric code under each variable.

1/1/17 Superficial Incisional Surgical Site Infection – Variable renamed Superficial Incisional Surgical Site Infection. Added new NTDS code. Verbiage updated.

1/1/17 Deep Incisional Surgical Site Infection – Verbiage updated.

1/1/17 Organ/Space Surgical Site Infection – Verbiage updated including clarification for capture of patients who develop empyema after chest tube placement.

1/1/17 Adult Respiratory Distress Syndrome (ARDS) – Variable renamed Acute Respiratory Distress Syndrome.

1/1/17 Ventilator-Associated Pneumonia - Verbiage updated.

1/1/17 Catheter-Associated Urinary Tract Infection – Verbiage updated.

1/1/17 Cardiac Arrest with CPR – Verbiage updated to exclude those patients who are receiving CPR on arrival to your hospital.

1/1/17 Myocardial Infarction – Verbiage updated.

1/1/17 Central Line Associated Bloodstream Infection – Verbiage updated.

1/1/17 Deep Vein Thrombosis (DVT) – Added clarification for inclusion capture of gastrocnemius and soleus thromboses if treated or documentation reflects contraindication.

1/1/17 Drug or Alcohol Withdrawal Syndrome – Variable renamed Alcohol Withdrawal Syndrome. Added new NTDS code. Verbiage updated.

1/1/17 Graft/Prosthesis/Flap Failure – Retired.

1/1/17 Osteomyelitis – Verbiage updated.

1/1/17 Sepsis – Verbiage updated.

1/1/17 Decubitus Ulcer – Variable renamed Pressure Ulcer. Added new NTDS code. Verbiage updated.

1/1/17 TBI Process Measures – Collection criterion verbiage added to excluding patients with isolated scalp abrasion(s), scalp contusion(s), scalp laceration(s) and/or scalp avulsion(s).

1/1/17 Cerebral Monitor Date – Verbiage added to indicate that null value of “Not Applicable” is used if the data field for Cerebral Monitor is “5. None”.

1/1/17 Cerebral Monitor Time – Verbiage added to indicate that null value of “Not Applicable” is used if the data field for Cerebral Monitor is “5. None”.

1/1/17 Reason Cerebral Monitor Withheld – Changed option 5 from “Operative evacuation with improvement post-op” to “Operative evacuation”.

1/1/17 Antibiotic Days – Added verbiage to exclude antifungal, antiviral and antiparasitic agents.

1/1/17 Antibiotic 1 Type – Added variable and verbiage.

1/1/17 Antibiotic 2 Type – Added variable and verbiage.

1/1/17 Antibiotic Date – Added variable and verbiage.

1/1/17 Antibiotic Time – Added variable and verbiage.

1/1/17 Venous Thromboembolism Prophylaxis Type - Added verbiage notifying of numbering gaps related to retired variables.

1/1/17 Blood Products (Blood, Plasma, FFP, Cryoprecipitate) – Add verbiage clarifying that when converting a volume to a unit, the individual amounts should be used not the aggregated sum.

1/1/17 IV Fluid – Added verbiage clarifying capture of PlasmaLyte as a crystalloid.

1/1/17 Tranexamic Acid Administration (TXA) – Added verbiage clarifying that topical administration should be excluded.

1/1/17 Angiography – Added option for Angiogram with stent graft and Angiogram with embolization and stent graft.

1/1/17 Embolization Site – Added option for Other.

1/1/17 Angiography Time – Added validation range for +/- 1 hour.

1/1/17 Surgery for Hemorrhage Control Type – Added verbiage for capture as none if field value is not listed in pick list.

1/1/17 Withdrawal of Care, Date, Time – Variable name change to Withdrawal of Life Supporting Treatment. Verbiage update changing “care” to “treatment” throughout the definition. Clarification to include if comfort care documented.

3/1/17 Ventilator Associated Pneumonia – Tables updated consistent with CDC Jan 2017 update

7/1/17 ARDS – Definition clarified per New Berlin. Hyperlink added to New Berlin.

7/1/17 Sepsis – Deleted the provided example.

7/1/17 Procedures – Head CT – Added capture of date and time for all patients on anticoagulant therapy or

aspirin who have head injury.