Chapter 4

ACS NSQIP®

Variables & Definitions

Program Legend: Essentials = E, Small-Rural = S-R, Targeted = T,

Measures Option = MO, Florida = FL

Patient & Case Identifiers

Variable Name: Identification Number (IDN)

Program Legend: E, S-R, T, MO, FL

Intent of Variable: This number can be used to look up the patient in the ACS NSQIP workstation.

Definition: The identification number (*IDN) is a unique number, which permanently identifies the patient in the ACS NSQIP database.

Criteria: The IDN used is at the discretion of the participating hospital, although it is common to enter the patient's Medical Record Number (MRN) in this field. If the IDN or MRN are not available, a site may elect to assign a permanent number, which is distinct to that particular patient.

Options:
- Enter Value

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- The IDN and Birth Date are the two required fields used to establish the patient in the ACS NSQIP database.
- If a patient appears in subsequent samplings (operative logs) and meets criteria, a new case form should be added to that existing patient IDN, instead of creating a new IDN.
- The IDN is transmitted securely to the ACS NSQIP database.

Variable Name: **Local Medical Record Number (LMRN)**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To allow institutions to capture a record number relevant to local purposes.

Definition: The LMRN is a distinct number representing the patient and is assigned by the hospital.

Criteria: It is common to enter the patient's medical record number in this field.

Options:
- Enter Value

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- For hospitals with a web based version of the workstation, both the IDN and LMRN are transmitted securely to the ACS database.

Variable Name: **Cycle Number**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: The 8-day cycle is a systematic sampling plan. It was created to prevent bias in choosing cases for assessment.

Definition: A number assigned to every eight consecutive days in a calendar year.

Criteria: See 8-Day Cycle Schedule (Appendix A)

Options:
- The cycle number is automatically generated by the database upon entering the operation date and is not manually entered by the SCR.

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- If 'Cycle 1' begins on Monday, January 1st, it will continue for an 8-day period of time. This period is referred to as the 8-Day Cycle in the ACS NSQIP. The next cycle, 'Cycle 2' will begin on Tuesday, January 9th and continue for the next eight consecutive days. 'Cycle 3' would then begin on January 17th and so on. There are a total of 46 8-day cycles in a calendar year.

Variable Name: **Case Number**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: The case number is the identifier for a patient's particular surgical procedure.

Definition: A workstation generated case ID number to show that a case has been entered into the ACS NSQIP.

Criteria: The minimal information needed to set up a case in the database is:
- IDN
- Date of Birth
- Date of Operation
- Surgical Specialty (not required for Florida)

Options: Case number is automatically generated by the database after entering the above criteria.

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- Record the case number on your data collection form. The case number is utilized by Outcome Sciences to identify and resolve any data entry issues you may encounter. It is also utilized to identify cases for inter-rater reliability reviews.

- This number is not a patient identifier, but rather an identifier for the surgical procedure being abstracted.

Demographics

Variable Name: Date of Birth

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To be able to calculate patient's age at the time of the principal operative procedure.

Definition: Date the patient was born.

Criteria: Enter patient's date of birth in the format of mm/dd/yyyy.

Options:
- Enter date (mm/dd/yyyy)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- The IDN and Birth Date are the two required fields used to establish the patient in the ACS NSQIP database.

Variable Name: <mark>Gender</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture gender for purpose of analysis. Gender can confer differential risk.

Definition: Distinguish between males and females.

Criteria: Report the patient's gender as per the medical record.

Options:
- Male
- Female

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: Race

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the race assigned to the patient at the institution. This may be self-assigned by the patient or assigned by institutional personnel per internal practices. Race can be utilized to investigate disparities in care or other relevant issues.

Definition:
- **White**: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
- **Black or African American**: A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" can be used in addition to "Black" or "African American."
- **American Indian or Alaska Native**: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- **Native Hawaiian or Other Pacific Islander**: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- **Asian**: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- **Unknown:** if documentation does not state patient's race, report as Unknown.

Criteria: Report the patient's race as per the medical record or as self-assigned by the patient.

Options:
- White
- Black or African American
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Asian
- Unknown/Not Reported

Scenarios to Clarify (Assign Variable):

Scenarios to Clarify (Do Not Assign Variable):

Notes:
- Categories are consistent with the US Census Bureau
- If documentation indicates the patient has more than one race (e.g. Black-White or Indian-White), select the first race listed.
- Although the terms Hispanic and Latino are actually descriptions of the patient's ethnicity, it is not uncommon to find them referenced as race. If the patient's race is documented only as Hispanic/Latino, select 'White'.
- If the patient is documented as bi-racial such as Black and Hispanic or multi-racial, then use whatever race is listed first (e.g. Black-Hispanic – select Black).
- Hispanic/Latino Ethnicity is a separate variable (listed below) where you can report the patient's ethnicity.

Variable Name: Hispanic Ethnicity

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the ethnicity assigned to the patient at the institution. This may be self-assigned by the patient or assigned by institutional personnel per internal practices. Ethnicity can be utilized to investigate disparities in care or other relevant issues.

Definition: Hispanic or Latino is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."

Criteria: Report if the patient is of Hispanic or Latino ethnicity as per the medical record or as self-assigned by the patient.

Options:
- Yes
- No
- Unknown

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- Race is required in addition to this data element.

Variable Name: **Preferred Language**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: This field is linked to the 30 day follow-up letter function. The follow-up letter will be generated in the language selected.

Definition: Patient's preferred spoken language.

Criteria: Report the patient's language as either English or Spanish.

Options:
- English
- Spanish

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Surgical Profile

Variable Name: Principal Operative Procedure

Program Legend: E, S-R, T, MO, FL (see breakdown below)

Intent of Variable: To assist in determining which surgical procedure and corresponding CPT® code will be the primary NSQIP abstracted procedure. This procedure is considered the primary focus of assessment.

Definition: See specific program options/criteria below.

Criteria:

E, T   **General/Vascular Site:** The principal operative procedure is the most complex of all the procedures performed by the operating team during this trip to the operating room. If more than one procedure is performed under the same anesthetic and the procedures are performed by a general and/or vascular surgeon and a multispecialty surgeon, review the general or vascular surgical procedure as the principal operative procedure. Document the multispecialty procedure as a concurrent procedure(s). Do not enter an additional procedure if it is covered by a single CPT® code. (Note that a single CPT® code can cover more than one procedure, for example, cholecystectomy and common bile duct exploration have a single CPT® code). Additional procedures requiring separate CPT® codes and/or concurrent procedures will be entered separately in the "Other Procedures" or "Concurrent Procedures" categories in the Operative page of the website. All "other" and "concurrent" procedure codes <u>must</u> be entered (CPT® codes not on the ACS NSQIP CPT® Code Inclusion List are eligible for these fields).

An exploratory laparotomy or lysis of adhesions should be entered as the principal operative procedure only when no other procedure eligible for assessment has been performed in that particular surgical case. When only an exploratory laparotomy with lysis of adhesions has been coded, the lysis of adhesions should be considered primary. Exploratory laparotomy is to be considered primary only when no other eligible procedure has been coded.

If there is any doubt, the SCR should consult with the surgeon who performed the case (or Surgeon Champion if the surgeon who performed the case is not available) and follow their direction, disregarding the above rules if the Surgeon advises to do so. Thus, if the surgeon who performed the case advises that the lysis of adhesions is the most relevant procedure to be considered primary, this is permitted.

(e.g., Mastectomy performed by general surgery and reconstruction performed by plastics: General/Vascular sites should review the mastectomy as the principal operative procedure and list the reconstruction as a concurrent procedure.)

E, S-R, MO, FL   **Multispecialty Site:** The principal operative procedure is the most complex of all the procedures performed by the operating team during this trip to the operating room. Do not enter an additional procedure if it is covered by a single CPT® code. A single CPT® code can cover more than one procedure (e.g. cholecystectomy **and** common bile duct exploration have a single CPT® code). Additional procedures requiring separate CPT® codes and/or concurrent procedures will be entered separately in the "Other Procedures" or "Concurrent Procedures" categories in the Operative page of the website. All "other" and "concurrent" procedure codes <u>must</u> be entered (CPT® codes not on the ACS NSQIP CPT® Code Inclusion List are eligible for these fields).

An exploratory laparotomy or lysis of adhesions should be entered as the principal operative procedure only when no other procedure eligible for assessment has been performed in that particular surgical case. When only an exploratory laparotomy with lysis of adhesions has been coded, the lysis of adhesions should be considered primary. Exploratory laparotomy is to be considered primary only when no other eligible procedure has been coded.

If there is any doubt, the SCR should consult with the surgeon who performed the case (or Surgeon Champion if the surgeon who performed the case is not available) and follow their direction, disregarding the above rules if the Surgeon advises to do so. Thus, if the surgeon who performed the case advises that the lysis of adhesions is the most relevant procedure to be considered primary, this is permitted.

(e.g., Mastectomy performed by general surgery and TRAM flap performed by plastics; Multispecialty sites should review the most surgically complex procedure as the principal operative procedure. The TRAM flap is the most surgically complex and would be reviewed as the principal operative procedure. The mastectomy would be listed as a concurrent procedure.)

T   **Procedure Targeted Site**

Basic Overview of Case Selection and Sampling Steps:
Step 1: "Essential 15" cases: Hospitals will need to first collect their 15 "Essential" cases (per 8-day cycle), using the traditional systematic sampling methodology.

General & Vascular Surgery: The first 15 consecutive cases of the combined General & Vascular Surgery cases qualifying for the Program are to be assessed, utilizing the Principal Operative Procedure General/Vascular Site definition.

MultiSpecialty: For hospitals that choose to collect multispecialty cases for their initial 15 cases per cycle, they will collect the first 15 consecutive cases across all specialty areas qualifying for the Program, utilizing the Principal Operative Procedure Multispecialty Site definition.

Step 2: Procedure Targeted Cases (25 cases per cycle*):
Follow the sampling methodology worksheet provided to your site by the ACS NSQIP to collect Procedure Targeted cases. For those situations where two targeted procedures are performed under the same anesthetic, the SCR should contact their Surgeon Champion or the surgical team to determine which case should be reviewed as the principal operative procedure. Only the principal operative procedure chosen for review will enable the procedure targeted variables in the database.

All "other" and "concurrent" procedure codes must be entered (CPT® codes not on the ACS NSQIP CPT® Code Inclusion List are eligible for these fields).
(e.g., Patient undergoes a Colectomy and Hepatectomy performed by general surgery and a Flaps performed by Plastics. Your site has chosen to target all three procedures. To determine the principal operative procedure to target for the program the SCR should contact the site's Surgeon Champion or the surgical team.)

Scenarios to Clarify (Assign Variable):

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Scenarios to Clarify (Do Not Assign Variable):

•

Notes:

- ACS advises each SCR to discuss and develop an internal process for determining the principal operative procedure with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.

Variable Name: CPT® (Current Procedural Terminology) Code

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the CPT® code which corresponds to the principal operative procedure being reviewed in NSQIP.

Definition: Per the American Medical Association (AMA) CPT codes are "…medical nomenclature used to report medical procedures and services…" (AMA, 1995-2012)[1]. The CPT® code system is copyrighted by the American Medical Association (AMA).

Criteria: Provide the CPT® code of the principal operative procedure as reported in the OR report, operative note, operating room log, or surgical billing.

Options:
- Enter value
- Entering the Procedure Description is optional

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- GUIDANCE:
  - If the intended surgical procedure was not performed or was aborted, then capture the performed procedure if the CPT® code meets inclusion criteria.
    - Intended surgical procedure is a Whipple. Patient enters the OR, surgeon enters the abdomen and discovers unresectable disease, the Whipple is aborted (not performed) and the surgeon documents that he/she performs a biopsy and a gastrojejunostomy/ hepaticojejunostomy. This case would be coded for review in NSQIP under the biopsy or gastrojejunostomy/hepaticojejunostomy, and not the Whipple.
    - Intended surgical procedure is an open colectomy. Patient enters the OR, surgeon enters the abdomen and the case is aborted; however the surgeon documents a laparotomy is performed. This case would be reviewed for NSQIP under the laparotomy and not the open colectomy.
- EXCEPTION:
  - If the intended procedure was not completed due to an intraoperative complication the case should still be captured.
    - Patient enters the OR for a ruptured AAA repair, patient codes during surgery; the procedure is aborted to administer CPR. The patient expires in the OR. This case would be

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[1]*American Medical Association*. (1995-2012). Retrieved May 29, 2012, from http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice/coding-billing-insurance/cpt/about-cpt.page

reviewed as the AAA and the intraoperative occurrence of death would be assigned to the intended AAA procedure.

- ACS advises each SCR to discuss and develop an internal process for determining the correct CPT® code with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.

Variable Name: **In/Out-Patient Status**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture admission status.

Definition: The admission status as determined by your institution.

Criteria: Follow your hospital's definition of inpatient and outpatient status and report as such.

Options:
- Inpatient
- Outpatient

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- If the patient does not meet your hospital's criteria of an inpatient, then they would be considered an outpatient.

Variable Name: **Elective Surgery, Patient Coming From Home**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify a relatively homogeneous group of patients who are well enough to come from home and to exclude patients who are admitted to the hospital for any period of time or for any reason prior to going to the OR, to allow for more meaningful comparative analyses.

Definition: The patient was brought from their home or normal living environment on the day of surgery for a non-emergent/non-urgent scheduled surgical procedure.

Criteria: The patient must meet criteria of A **AND** B:

    A. Patient must be brought from their home or normal living environment on the day of surgery

    AND

    B. Surgery must be non-emergent/non-urgent scheduled procedure

Options:
- Yes
- No
- Unknown

Scenarios to Clarify (Assign Variable):
- If the patient is brought to the hospital or facility for a scheduled (elective) surgery from their home or normal living situation on the day that the procedure is performed.
- Patients staying with friends or family, or in a local hotel, because of logistics (e.g., patient lives 50 miles from the hospital and stays in a hotel across from the hospital the night before their scheduled (elective) surgery)
- Patients who come from their present "home" (which may include patients whose home is a nursing home, assisted care facility, prison or other non-hospital institution)

Scenarios to Clarify (Do Not Assign Variable):
- Patients who are inpatient at an acute care hospital (e.g., patient transferred from another acute care hospital to your hospital for surgery)
- Patients who are transferred from an ED
- Patients who are transferred from a clinic
- Patients who undergo an emergent/urgent surgical case
- Patients whose admission to the hospital was on any date prior to the date of the scheduled surgical procedure for any reason (e.g. cardiac or pulmonary workup or "tuning", bowel cleanout, TPN, hydration, anticoagulation reversal, etc.)

Notes:

Variable Name: **Origin Status**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture patients admitted from home or transferred from another facility.

Definition: Designate whether the patient was admitted to your hospital from their home or from another type of facility.

Criteria: The patient must meet criteria of one of the following:
- Not transferred, admitted directly from home (e.g., home, assisted living, group home, homeless, prison doctor's office, urgent care, etc.)
- Acute Care Hospital (i.e., inpatient status only)
- Nursing Home/Chronic Care Facility/Intermediate Care Unit
- Transfer from other (e.g., Spinal Cord Injury Unit or other facility not listed)
- Transfer from outside Emergency Department (ED)
- Unknown, if transferred from unknown location or facility

Options:
- Select the appropriate origin status from the dropdown menu located in the database.

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- If the patient was admitted directly from home, select "Not transferred, admitted directly from home."
- If the patient was transferred from another facility and was considered an inpatient at that facility, please select from the following choices: "Acute Care Hospital", "Nursing Home / Chronic Care Facility / Intermediate Care Unit", or "Transfer from other."
- If a patient arrives from another hospital's emergency department, report as "Transfer from outside Emergency Department."
- If you cannot determine what kind of facility, enter "Unknown."

Variable Name: <mark>Hospital Admission Date</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: This is to capture the date that the patient was considered officially admitted to the acute hospital setting.

Definition: The date the patient was admitted to your hospital/institution's acute care setting.

Criteria: The date the institution has assigned to the start of the **acute care** for the hospital admission for the principal operative procedure.

Options:
- Enter date (mm/dd/yyyy)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- If the patient came through the Emergency Department or a same-day elective surgery program, went directly to the operating room, and was admitted to the hospital, then use either the date the patient enters the operating room or the date that anesthesia care begins; (whichever comes first) as the date of admission. Do not use the date the patient came into the Emergency Department.

Variable Name: Operation Date

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the date when the patient enters the surgical suite for the principal operative procedure.

Definition: The date the patient enters the surgical suite for the principal operative procedure.

Criteria: Enter the date the patient enters the surgical suite for the principal operative procedure being captured in NSQIP.

Options:
- Enter date (mm/dd/yyyy)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- If the date of operation runs over into the next day enter either the date that anesthesia care begins or the date the patient enters the operating room, whichever comes first.
- The IDN and Birth Date are the two required fields used to establish a patient in the NSQIP database. Once established in the ACS NSQIP database, the Operation Date and Surgical Specialty are required to generate a Case Number.
- Subsequently the operative date fields are prepopulated from this date, but finish date can be modified if needed.

Variable Name: **Principal Anesthesia Technique**

Program Legend: E, S-R, T

Intent of Variable: To capture the type of anesthesia administered.

Definition: The type of anesthesia administered during the principal operative procedure, as reported in medical record.

Criteria: Select from the list below the principal anesthesia technique used during the principal operative procedure:
- **General** - including IV anesthesia with intubation or Laryngeal Mask Airway (LMA)
- **Spinal**
- **Epidural**
- **Regional**
- **Local – usually performed by the surgeon.**
- **Monitored anesthesia care (MAC)/IV Sedation.** Also categorize cases where IV sedation is administered in the OR by a Registered Nurse.
- **None**
- **Other**
- **Unknown**

Options:
- Select the appropriate anesthesia technique from the dropdown menu.

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- The technique employed may be found on the anesthesia record. General anesthesia should take precedence over all other forms of anesthesia.   MAC should be chosen for MAC with or without Local.
- If the patient is given a regional/spinal or epidural and MAC, MAC anesthesia would take precedence.

Variable Name: Additional Anesthesia Technique(s)

Program Legend: E, S-R, T

Intent of Variable: To capture additional type(s) of anesthesia administered, if any, outside of the principal anesthesia technique.

Definition: The type(s) of anesthesia administered, outside of the primary anesthesia technique, as reported in the medical record.

Criteria: Select from the list below the additional anesthesia technique used during the principal operative procedure:

- General
- Spinal
- Epidural
- Regional
- Local
- Monitored Anesthesia Care/IV Sedation
- Other

Options:

- Select the appropriate anesthesia technique(s) by clicking next to each option (choose all that apply).

Scenarios to Clarify (Assign Variable):

-

Scenarios to Clarify (Do Not Assign Variable):

-

Notes:

- **This is an optional variable that is not required to complete the case.**
- This variable can be utilized to answer what additional anesthesia techniques, outside of the primary technique, was utilized.

Variable Name: **Surgical Specialty**

Program Legend: E, S-R, T

Intent of Variable: To capture the surgical specialty area that best characterizes the principal operative procedure.

Definition: The surgical specialty area (from the options below) that best characterizes the principal operative procedure.

Criteria: Choose the surgical specialty area which best characterizes the principal operative procedure.

Options:
- General Surgery
- Vascular
- Thoracic
- Cardiac
- Orthopedics
- Neurosurgery
- Urology
- Otolaryngology (ENT)
- Plastics
- Gynecology
- Interventional Radiologist

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

- Once the patient has been established in the ACS NSQIP database (via entry of the IDN and Date of Birth), the Operation Date and Surgical Specialty are required to generate a Case Number.
- ACS advises each SCR to discuss this issue with their Surgeon Champion and develop an internal process for determining the best surgical specialty designation for each procedure.
- Any of the following criteria can be used by an institution to characterize the specialty of a procedure. This guidance is not all inclusive, nor is it in order of preference. Each institution should determine its assignments.
    - Surgical service line most closely associated with the principal operative procedure. If a surgeon is privileged to perform cases within multiple specialties (regardless of board certification), the service line/specialty most closely related to the principal operative procedure would be assigned.
        - **Example**: A surgeon can be designated under multiple specialties. If a surgeon at your site has privileges to perform general surgery and vascular surgery, a site may designate the general

surgery cases he/she performs under 'General' and the vascular surgery cases he/she performs under 'Vascular'. (E.g. Dr. Smith is privileged at your hospital to perform general and vascular cases. In one day he performs an appendectomy and a carotid endarterectomy. As Dr. Smith is privileged as a general and vascular surgeon, the SCR would assign the surgical specialty of general for the appendectomy and vascular for the carotid endarterectomy.)

- Surgeon's Board Certification or Board Eligibility
    - **Note**: If a Surgeon is "Board Certified" in both Vascular Surgery and General Surgery and performs an appendectomy, the surgeon's specialty should be designated as general surgery, but if he/she performs a vascular bypass, it should be designated as vascular.
- Surgeon's self-declared specialty

Variable Name: **Attending Surgeon ID Number (IDN)**

Program Legend: E, S-R, T

Intent of Variable: For sites to have the ability to track each surgeon's surgical cases.

Definition: A number assigned to each surgeon by their hospital.

Criteria: Each surgeon must be given a unique identifying number assigned by the hospital.

Options:
- Select the appropriate Surgeon (IDN) from the dropdown menu.

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- This variable will not be transmitted. It is for the hospital's internal use only.
- To create a surgeon list in the database:
  1. Select the "My Account" tab
  2. Select "Manage Custom Lists"
  3. Select "Surgeon"
  4. Select "New Code"
  5. Enter the surgeon information and select "Save"
- If you have entered a duplicate surgeon or need to deactivate a surgeon, go to the "My Account" Tab and select "Manage Custom Lists" link: Select the "Surgeon" link, and then select "Edit" for the duplicate surgeon or surgeon which needs to be deactivated from the list. Enter the past date 01/01/1999 for "Starting Date" and 01/02/1999, for "Ending Date," and select "Save." This surgeon entry will now be removed from the list on the forms.

Variable Name: **LCN**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To allow hospitals the option to assign a separate unique tracking number.

Definition: The local case number (LCN) is an optional number the hospital can assign.

Criteria: Per sites discretion.

Options:
- Enter value (optional)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- You may wish to utilize this field for internal tracking purposes.

Variable Name: **Encounter Number**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To allow hospitals the option to assign a separate unique tracking number.

Definition: The encounter number is an additional optional number the hospital can assign.

Criteria: Per sites discretion.

Options:
  • Enter value (optional)

Scenarios to Clarify (Assign Variable):
  •

Scenarios to Clarify (Do Not Assign Variable):
  •

Notes:

PREOPERATIVE RISK ASSESSMENT

There are differing timeframes for preoperative risk factors. Please be aware of the specific times frames when assigning these variables.

Only preoperative information can be utilized to assign preoperative variables; unless otherwise specified by the definition.

Exception: In the scenario where an **urgent** or **emergent** surgery is performed and the situation does not allow for complete preoperative documentation of a history and physical (H&P), information from the H&P, which was dictated postoperatively but within 48 hours of the Principal Operative Procedure, may be utilized to assign preoperative variables. Such documentation must describe the patient's previous medical history. Information derived solely as a result of the Principal Operative Procedure or established during the postoperative timeframe may not be utilized, unless a particular variable specifically allows it. This guidance resembles current Centers for Medicare and Medicaid (CMS) rules.

GENERAL

Variable Name: **Height**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the height of the patient to calculate body mass index (BMI).

Definition: The height of a patient.

Criteria: Report the patient's most recent height documented in the medical record in either inches (in) or centimeters (cm), within the 30 days prior to the principal operative procedure or at the time the patient is being considered a candidate for surgery.

Options:
- Enter value
- Select centimeters/inches
- Unknown

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: **Weight**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the weight of the patient to calculate body mass index (BMI).

Definition: The amount a patient weighs.

Criteria: Report the patient's most recent weight documented in the medical record in either pounds (lbs.) or kilograms (kg), within the 30 days prior to the principal operative procedure or at the time the patient is being considered a candidate for surgery.

Options:
- Enter value
- Select pounds/kilograms
- Unknown

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: Diabetes Mellitus **Requiring Therapy with Non-Insulin Agents or Insulin**

Program Legend: E, S-R, T

Intent of Variable: To differentiate three groups of patients with respect to diabetes: those not requiring therapy or controlled by diet alone, those requiring a non-insulin agent, and those requiring insulin. This should reflect how the patient is treated on a chronic basis prior to admission, not how they are managed in the hospital immediately prior to surgery. The diabetic who comes in and is sick, who has been treated with oral agents may need coverage with a sliding scale. This does not qualify as a diabetic treated with insulin. Diabetes may put a patient at increased risk for infection, delayed wound healing, renal and cardiac dysfunction.

Definition: Diabetes mellitus is a metabolic disorder of the pancreas whereby the individual requires careful monitoring of diet or *regular* dosages of exogenous parenteral insulin or a non-insulin anti-diabetic agent to prevent hyperglycemia/metabolic acidosis.

Criteria: Report the treatment regimen of the patient's **chronic, long-term management (treated > 2 weeks),** within the 30 days prior to the principal operative procedure or at the time the patient is being considered a candidate for surgery.
- **No:** no diagnosis of diabetes or diabetes controlled by diet alone
- **Non-Insulin:** a diagnosis of diabetes requiring therapy with a non-insulin anti-diabetic agent (such as oral agents or other non-insulin agents)
- **Insulin:** a diagnosis of diabetes requiring daily insulin therapy

Options:
- No
- Non-Insulin
- Insulin

Scenarios to Clarify (Assign Variable):
- Insulin resistance (e.g., polycystic ovarian syndrome) that routinely take anti-diabetic agents
- Patients prescribed oral or insulin treatment and are noncompliant

Scenarios to Clarify (Do Not Assign Variable):
- Diabetes controlled by diet alone

Notes:

Variable Name: <mark>**Current Smoker within One Year**</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture a patient who has smoked cigarettes at any point within the 12 months prior to surgery. The use of cigarettes may have negative cardiopulmonary effects, increase risk for stroke, delay wound healing, along with increased anesthesia risk and venous thromboembolism (VTE).

Definition: A current smoker has smoked cigarettes at any point within the 12 months prior to admission for surgery. This does not include the use of cigars, pipes, chewing tobacco, or marijuana.

Criteria: Patient has smoked **cigarettes within the 12 months** prior to admission for the principal operative procedure.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
- <mark>If a definitive date of when the patient stopped smoking is not provided, the documentation should be reviewed with your Surgeon Champion for clarification.</mark>

Notes:

Variable Name: **Dyspnea**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the <u>**usual or typical level of dyspnea**</u> (patient's baseline). Dyspnea may indicate a chronic/underlying disease state that compromises a patient's physiologic status putting them at increased risk for negative surgical outcomes. The intent is not to include patients solely because of an acute respiratory condition leading to intubation prior to surgery, but rather to reflect a chronic disease state.

Definition: Dyspnea may be symptomatic of numerous disorders that interfere with adequate ventilation or perfusion of the blood with oxygen and is defined as difficult, painful or labored breathing.

Criteria: Characterize the patient's dyspnea status when they were in their <u>**usual state of health**</u>, prior to the onset of the acute illness, within the 30 days prior to the principal operative procedure or at the time the patient is being considered a candidate for surgery.
- **No dyspnea**
- **Dyspnea upon moderate exertion** (e.g., is unable to climb one flight of stairs without shortness of breath)
- **Dyspnea at rest** (e.g., cannot complete a sentence without needing to take a breath)

Options:
- No dyspnea
- Moderate exertion
- At rest

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
- Hyperventilation
- Obstructive sleep apnea
- Paroxysmal nocturnal dyspnea

Notes:
- Acute preop dyspnea associated with the acute illness will be captured through other variables like preop vent dependence, emergency status or ASA Class. The patient does not need to state that they are symptomatic; not all patients are able to verbalize this symptomatology.

Variable Name: <mark>Functional Health Status</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the best functional status/level of self-care as demonstrated by the patient prior to the onset of acute illness. This may indicate a chronic/underlying disease state that may impact the patient's risk.

Definition: Activities of daily living (ADLs) are defined as 'the activities usually performed in the course of a normal day in a person's life'. ADLs include: bathing, feeding, dressing, toileting, and mobility.

Criteria: Report the **best** functional status demonstrated by the patient, within the 30 days prior to the principal operative procedure or at the time the patient is being considered a candidate for surgery. Report the level of functional health status as defined by the following criteria:
- **Independent:** The patient does not require assistance from another person for any activities of daily living. This includes a person who is able to function independently with prosthetics, equipment, or devices.
- **Partially dependent:** The patient requires some assistance from another person for activities of daily living. This includes a person who utilizes prosthetics, equipment, or devices but still requires some assistance from another person for ADLs.
- **Totally dependent:** The patient requires total assistance for all activities of daily living.
- **Unknown:** If unable to ascertain the functional status prior to surgery, report as unknown.

Options:
- Independent
- Partially dependent
- Totally dependent
- Unknown

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- If there is a change in the patients functional status, (e.g., improvement to worsening) within the 30 days prior to surgery, or at the time the patient is being considered a candidate for surgery, report the patient's best functional status.
- All patients with psychiatric illnesses should be evaluated for their ability to function with or without assistance with ADLs just as the non-psychiatric patient. For instance, if a patient with schizophrenia is able to care for him/herself without the assistance of nursing care, he/she is considered independent.

PULMONARY

Variable Name: <mark>Ventilator Dependent</mark>

Program Legend: E, S-R, T

Intent of Variable: To capture a patient who has required ventilator-assisted respirations within 48 hours prior to the principal operative procedure. The need for ventilator-assisted respirations may reflect physiologic issues that increase risk.

Definition: The patient requires ventilator-assisted respiration.

Criteria: A preoperative patient requiring ventilator-assisted respiration at any time during the **48 hours preceding the principal operative procedure.**

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
- Treatment of sleep apnea with CPAP or BiPAP

Notes:
- The following applies to patients assigned with the postoperative outcome of "On the ventilator >48 hours": If the patient meets criteria above for 'Ventilator Dependent' **AND** was taken to the operating room on ventilator support **AND** the postoperative occurrence of 'On Ventilator > 48 hours' is assigned, you will need to document **P**resent **A**t **T**ime **O**f **S**urgery (**PATOS**) for the postoperative occurrence of 'On Ventilator > 48 hours'.

Variable Name: COPD (Severe)

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture patients who suffer from severe Chronic Obstructive Pulmonary Disease (COPD). This may impact the patient's outcome or ability to recover postoperatively. COPD may have negative cardiopulmonary effects, end organ dysfunction and anesthesia risks.

Definition: ". . . COPD [emphysema and/or chronic bronchitis/bronchiectasis/ bronchiolitis obliterans organizing pneumonia (BOOP)] is a progressive disease that makes it hard to breathe. 'Progressive' means the disease gets worse over time. "COPD can cause coughing that produces large amounts of mucus . . ., wheezing, shortness of breath, chest tightness, and other symptoms" (National Heart Lung and Blood Institute, 2010) [2].

Criteria: Medical record must document that there is a historical or current diagnosis of COPD **AND** at least **one** of the following, within the 30 days prior to the principal operative procedure or at the time the patient is being considered as a candidate for surgery:

- Functional disability from COPD (e.g., dyspnea, inability to perform ADLs)

OR

- Requires chronic bronchodilator therapy with oral or inhaled agents

OR

- Hospitalization in the **past** for treatment of COPD

OR

- An FEV_1 of <75% of predicted on a **prior** pulmonary function test (PFT)

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
- Patients whose only pulmonary disease is asthma, an acute and chronic inflammatory disease of the airways resulting in bronchospasm
- Patients with diffuse interstitial fibrosis, sarcoidosis, or silicosis

Notes:

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[2] *National Heart Lung and Blood Institute*. (2010). Retrieved May 29, 2012 from http://www.nhlbi.nih.gov/health/health-topics/topics/copd/

HEPATOBILIARY

Variable Name: <mark>Ascites</mark> **within 30 Days Prior to Surgery**

Program Legend: E, S-R, T

Intent of Variable: To capture patients with a current fluid accumulation in the abdomen due to advanced liver disease or malignancy. This may indicate a composite of risks including: malignancy, hemodynamic changes, liver, kidney and/or cardiopulmonary dysfunction. This may affect wound healing, medication metabolization, and cause electrolyte imbalances.

Definition: The presence of fluid accumulation in the peritoneal cavity.

Criteria: Fluid noted on physical examination, abdominal ultrasound, or abdominal CT/MRI, within 30 days prior to the principal operative procedure or at the time the patient is being considered as a candidate for surgery. Documentation **must** also state either active or a history of liver disease (e.g., jaundice, encephalopathy, hepatomegaly, portal hypertension, liver failure, or spider telangiectasia) to qualify or must state secondary to malignancy (e.g., malignant ascites).

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Malignant ascites (exclusive of liver disease) due to extensive cancer
- Ascites due to liver disease or malignancy that was drained within 30 days prior to the principal operative procedure or since the patient was considered for surgery

Scenarios to Clarify (Do Not Assign Variable):
- Ascites that was first appreciated intraoperatively. Ascites must be noted preoperatively
- Ascites documented as "minimal," "trace," or "small amount"

Notes:

CARDIAC

Variable Name: <mark>Congestive Heart Failure</mark> **within 30 Days Prior to Surgery**

Program Legend: E, S-R, T

Intent of Variable: To capture patients with a new diagnosis of congestive heart failure (CHF), or recent exacerbation of chronic CHF, which may decrease their physiologic reserve postoperatively. Effects may include delayed wound healing, VTE, and severe cardiopulmonary complications.

Definition: CHF is the inability of the heart to pump a sufficient quantity of blood to meet the metabolic needs of the body or a situation where the heart can do so only at increased ventricular filling pressure.
Common CHF manifestations include:
- Abnormal limitation in exercise tolerance due to dyspnea or fatigue
- Orthopnea (dyspnea when lying supine)
- Paroxysmal nocturnal dyspnea (PND-awakening from sleep with dyspnea)
- Increased jugular venous pressure (JVP)
- Pulmonary rales on physical examination
- Cardiomegaly
- Pulmonary vascular engorgement

Criteria: Newly diagnosed CHF or a diagnosis of chronic CHF with current signs or symptoms, in the 30 days prior to the principal operative procedure or at the time the patient is being considered as a candidate for surgery.
- Diagnosis in the medical record should be noted as CHF, congestive heart failure, or pulmonary edema.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: ==Hypertension== Requiring Medication

Program Legend: E, S-R, T

Intent of Variable: To capture patients with a diagnosis of hypertension severe enough that medication is or should be prescribed. This condition may impact the patient's risk for cerebrovascular, renal and cardiac disease.

Definition: "Hypertension (HTN) is the term used to describe high blood pressure. Blood pressure is a measurement of the force against the walls of your arteries as your heart pumps blood through your body. High blood pressure (hypertension) is when your blood pressure is 140/90 mmHg or above most of the time." (MedlinePlus, April 2012)[3].

Criteria: The diagnosis of HTN must be documented in the patient's medical record **and** the condition is severe enough that it requires antihypertensive medication, within 30 days prior to the principal operative procedure or at the time the patient is being considered as a candidate for surgery. ==The patient must have been receiving or required== **long-term treatment of their chronic hypertension for > 2 weeks.**

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Patients who are prescribed antihypertensives and are noncompliant

Scenarios to Clarify (Do Not Assign Variable):
- ==Patients who receive a onetime does of antihypertensive medication or who have not been prescribed or required treatment for > 2 weeks.==
- ==HTN controlled by diet alone==

Notes:
- Examples of antihypertensive medications include: diuretics, beta blockers, ACE inhibitors, calcium channel blockers

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[3] *MedlinePlus.* (2012). Retrieved May 29, 2012 from http://www.nlm.nih.gov/medlineplus/ency/article/000468.htm

RENAL

Variable Name: Acute Renal Failure

Program Legend: E, S-R, T

Intent of Variable: To capture patients who have demonstrated renal compromise within 24 hours prior to surgery. This is a unique risk which signifies end organ failure/dysfunction.

Definition: A clinical condition associated with rapid decline of kidney function.

Criteria: Patient must meet **ONE** of the following scenarios (A or B) within 24 hours prior to the principal operative procedure:

A. An increase in BUN based on two measurements **and** two creatinine (Cr) results above 3mg/dl. There must be at minimum two measurements per lab value, *the most recent of which must be within 24 hours prior to the start of the principal operative procedure; the second must be within 90 days of the principal operative procedure.*

> ➢ *Guidance: BUN may also meet criteria if there is an increase within normal range (based on your hospital's reference range for BUN)*

OR

B. The surgeon or attending physician has documented Acute Renal Failure in the medical record **and** the patient demonstrates **ONE** of the following:

1) An increase in BUN based on at least two measurements, *the most recent of which must be within 24 hours prior to the start of the principal operative procedure; the second must be within 90 days of the principal operative procedure* **and** one creatinine above 3mg/dl, *which must be within 24 hours prior to the start of the principal operative procedure.*

> ➢ *Guidance: BUN may also meet criteria if there is an increase within normal range (based on your hospital's reference range for BUN)*

OR

2) Two creatinine results above 3mg/dl, *the most recent of which must be within 24 hours prior to the start of the principal operative procedure; the second must be within 90 days of the principal operative procedure* **and** one abnormal BUN (based on your hospital's reference range for BUN), *which must be within 24 hours prior to the start of the principal operative procedure.*

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):

- Example for criteria A (Patient does not have a diagnosis of acute renal):
    - 07/01/2012 13:03   BUN 10, Cr 3.10
    - 07/02/2012 11:23   BUN 15, Cr 3.01
    - 07/02/2012 14:00   OP Date

    The most recent lab values within 24 hours prior to the principal operative procedure show an increase in BUN (although the two measurements are within a "normal" range) and a decrease in Cr; however, since both Cr results are >3mg/dl; hence, criteria are met to assign Acute Renal Failure.

- Example for criteria B1 (Patient has a diagnosis of acute renal failure):
    - 07/01/2012 05:57   BUN 15, Cr 2.85
    - 07/02/2012 02:34   BUN 23, Cr 3.01
    - 07/02/2012 09:00   OP Date

    The most recent lab values within 24 hours prior to the principal operative procedure show an increase in BUN, at least **one** Cr result >3mg/dl **AND** there is a diagnosis of acute renal failure; hence, criteria for scenario B1 are met to assign Acute Renal Failure.

- Example for criteria B2 (Patient has a diagnosis of acute renal failure):
    - 07/01/2012 05:57   BUN 14, Cr 3.3
    - 07/02/2012 02:34   BUN 32, Cr 4.0
    - 07/02/2012 09:00   OP Date

    The most recent lab values within 24 hours prior to the principal operative procedure show one abnormal BUN and **two** Cr results >3mg/dl **AND** there is also a diagnosis of acute renal failure; hence, criteria for scenario B2 are met to assign ARF.

- Example: If the criteria for A, B1 or B2 are met within 24 hours prior to the principal operative procedure and the patient subsequently demonstrates improved lab values, assign the variable of acute renal failure (ARF). Volume resuscitation can give the appearance of transient improvement of the patient's renal status.
    - 07/01/2012 05:57   BUN 14, Cr 3.3
    - 07/02/2012 02:34   BUN 32, Cr 4.0
    - 07/02/2012 06:38   BUN 10, Cr 2.7 *(lab values normalized following fluid resuscitation)*
    - 07/02/2012 09:00   OP Date

    The first two measurements meet conditions for criteria A for assigning acute renal failure (one measurement of lab values within 24 hours prior to the principal operative procedure show an increase in BUN and **two** Cr results >3mg/dl); however, subsequent lab values within 24 hours prior to the principal operative procedure show an improvement, criteria for scenario A are already met in the first two measurements to assign ARF.

Scenarios to Clarify (Do Not Assign Variable):
- Example for criteria A (Patient does not have a diagnosis of acute renal failure):
    - 07/01/2012 05:57   BUN 62, Cr 3.46
    - 07/02/2012 02:34   BUN 57, Cr 3.25
    - 07/02/2012 09:00   OP Date

    Although the most recent lab values are within the 24 hours prior to the principal operative procedure and both Cr results are >3mg/dl, there is a decrease in BUN; accordingly, criteria are not met to assign ARF.

- Example for criteria B1: Patient has a diagnosis of acute renal failure:
    - 07/01/2012 05:57   BUN 40, Cr 3.01
    - 07/02/2012 02:34   BUN 35, Cr 3.0
    - 07/02/2012 09:00   OP Date

    Although there is a diagnosis of acute renal failure, and the most recent lab values are within the 24 hours prior to the principal operative procedure, there is a decrease in BUN and Cr is not >3mg/dl within 24 hours of the principal operative procedure; accordingly, criteria are not met to assign ARF.

- Example for criteria B2: Patient has a diagnosis of acute renal failure:
    - 07/01/2012 05:57   BUN 16, Cr 3.00
    - 07/02/2012 02:34   BUN 14, Cr 3.17
    - 07/02/2012 09:00   OP Date

    Although there is a diagnosis of acute renal failure, and the most recent lab values are within the 24 hours prior to the principal operative procedure and there is a decrease in BUN and only one Cr >3mg/dl; accordingly, criteria is not met to assign ARF.

Notes:

Variable Name: <mark>**Currently Requiring or On Dialysis**</mark>

Program Legend: E, S-R, T

Intent of Variable: To capture patients who have demonstrated renal compromise severe enough to require dialysis within two weeks prior to surgery. This would indicate end organ failure/dysfunction and may cause physiologic changes such as electrolyte imbalances and metabolic/hematologic abnormalities.

Definition: A clinical condition associated with the decline of kidney function severe enough requiring dialysis.

Criteria: Acute or chronic renal failure requiring treatment with peritoneal dialysis, hemodialysis, hemofiltration, hemodiafiltration, or ultrafiltration, within **two weeks prior to the principal operative procedure.** The medical record must document that such a treatment was indicated.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- A patient requires dialysis, but refuses it
- A patient whose physical condition is documented in the medical record as warranting dialysis preoperatively and is unable to undergo dialysis due to the need for surgery
- A vascular dialysis catheter that is placed during the principal operative procedure and used for dialysis or filtration within 48 hours following surgery; this reflects a situation where dialysis was indicated prior to surgery. Contrast this to the example of peritoneal dialysis catheter below

Scenarios to Clarify (Do Not Assign Variable):
- A peritoneal dialysis catheter, other catheter, or fistula that is placed in the OR but not used for dialysis or filtration within 48 hours following placement; this reflects a situation where dialysis was not indicated prior to surgery

Notes:

NUTRITIONAL/IMMUNE/ONCOLOGY/OTHER

Variable Name: Disseminated Cancer

Program Legend: E, S-R, T

Intent of Variable: To capture patients with advanced malignancy reflecting serious physiologic compromise. In this situation, there are a multitude of risks related to the progression of cancer. Some types of cancer, even though metastatic or disseminated, might still be considered to have minimal acute physiologic risk. The intent is to exclude these cases.

Definition: Primary cancer that has metastasized to a major organ or is otherwise disseminated and is being actively treated or otherwise reflects high severity per criteria below.

Criteria: The patient has a primary cancer that has metastasized or disseminated to a major organ **AND** the patient also meets **AT LEAST ONE** of the following criteria:
- The patient has received active treatment for the cancer within one year of their ACS NSQIP assessed procedure surgery date. If the ACS NSQIP assessed surgical procedure is the treatment for the metastatic cancer, assign disseminated cancer to the case.
- The extent of disease is first appreciated at the time of the surgical procedure in question.
- The patient has elected not to receive treatment for the metastatic disease, but such treatment was indicated.
- The patient's metastatic cancer has been deemed untreatable.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Report the following cancers as Disseminated Cancer: Acute Lymphocytic Leukemia (ALL), Acute Myelogenous Leukemia (AML), and Stage IV Lymphoma
- A patient with primary breast cancer with positive nodes in the axilla, liver metastases and is also receiving chemotherapy at the time of the assessed ACS NSQIP surgical procedure
- A patient with colon cancer with liver metastasis and/or peritoneal seeding with tumor, who received their last dose of chemotherapy and radiation therapy 2 months prior to their ACS NSQIP assessed procedure
- A patient with preoperative Stage III colon cancer is admitted for a colectomy. Upon entering the abdomen the surgeon identifies cancer which has spread to the surrounding organs
- A patient with a history of Stage IV Lymphoma who received their second round of chemotherapy two months prior to surgery
- Cancer treatments include not only chemotherapy and radiation therapy, but also surgery and hormone therapy

Scenarios to Clarify (Do Not Assign Variable):
- Cancers that have only metastasized to lymph nodes
- Chronic Lymphocytic Leukemia (CLL), Chronic Myelogenous Leukemia (CML), Stages I through III Lymphomas or Multiple Myeloma
- A patient with a primary breast cancer with disease extent limited to positive lymph nodes in the axilla
- A patient with colon cancer and no positive lymph nodes or distant metastasis

- A patient with colon cancer and several local lymph nodes positive for tumor, but no other evidence of metastatic disease
- A patient with adenocarcinoma of the prostate confined to the capsule
- A patient with prostate cancer that extends through the capsule of the prostate only
- A patient with prostate cancer with bony metastasis who received their last dose of chemotherapy 14 months ago
- A patient with a history of Stage IV Lymphoma who is now without evidence of disease since finishing chemo six years ago

Notes:
- Common sites of metastasis include: brain, lung, liver, meninges, abdomen, peritoneum, pleura, and bone.
- Examples of cancer treatments include, but are not limited to chemotherapy, radiation therapy, hormone therapy and surgery.

Variable Name: Open Wound (with or without Infection)

Program Legend: E, S-R, T

Intent of Variable: To capture patients with an open wound in the skin which may place them at increased risk for infection and may indicate an underlying disease state. The intent is not to capture simple, uncomplicated, acute cuts, abrasions, or skin rashes.

Definition: An open wound is a breach in the integrity of the skin or separation of skin edges and includes open surgical wounds, with or without cellulitis or purulent exudate.

Criteria: Preoperative evidence of a documented open wound at the time of the principal operative procedure.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Open drains currently in place and placed during a previous procedure should be considered an open wound (e.g., Penrose drains)
- Open wounds currently undergoing dressing changes or with negative pressure wound devices (e.g., wound vacs)
- Any abnormal passageway leading from an internal organ (e.g., intestinal tract) to the surface of the body / skin (e.g., enterocutaneous fistula [ECF])

Scenarios to Clarify (Do Not Assign Variable):
- This does not include osteomyelitis or localized abscesses
- An ostomy would not be considered an open wound
- A scabbed over wound with or without drainage
- A minor wound small enough to be covered by a Band-Aid (break in skin)
- Oral sores
- A tracheostomy would not be considered an open wound

Notes:

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Variable Name: <mark>**Steroid/Immunosuppressant Use for a Chronic Condition**</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture patients who are receiving long-term pharmaceutical immunosuppressants which may lead to delayed wound healing, postoperative infection, and other effects. A short immunosuppressant course, one-time pulse or short taper would not qualify. Long-interval injections of long-acting agents (e.g., monthly) that are part of an ongoing regimen would qualify.

Definition: Corticosteroids and other immunosuppressants are utilized to decrease the body's inflammatory response and can inhibit various portions of the immune system.

Criteria: Patient has required the regular administration of oral or parenteral corticosteroid medications or immunosuppressant medications, for a chronic medical condition, within the 30 days prior to the principal operative procedure, or at the time the patient is being considered as a candidate for surgery.   A one-time pulse, limited short course, or a taper of less than 10 days duration **would not qualify**. Long-interval injections of long-acting agents (e.g., monthly) that are part of an ongoing regimen **would** qualify.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Patient has a diagnosis of Crohn's Disease and receives one dose of Infliximab prior to the Principal Operative Procedure and has an active physician's order to receive one dose of Infliximab every 8 weeks.

Scenarios to Clarify (Do Not Assign Variable):
- Topical corticosteroids applied to the skin or corticosteroids administered by inhalation or rectally
- Short course steroids, pulse or taper (duration 10 days or less) in the 30 days prior to surgery
    - 'Pulse dose' is intravenous administration of a high dose of steroids given over a short period of time or intermittently

Notes:
- Examples of corticosteroid medications include, but are not limited to Prednisone and Decadron.
- Examples of chronic medical conditions include, but are not limited to: COPD, asthma, rheumatologic disease, rheumatoid arthritis, and inflammatory bowel disease.
- Examples of patients who may take immunosuppressant medications include those on chemotherapy, transplant patients or patients with chronic inflammatory conditions.

Immunosuppressant medications may include:*

Brand	Generic
CellCept	Mycophenolate Mofetil
Enbrel	Etanercept
Humira	Adalimumab
Imuran	Azathioprine
Neoral	Cyclosporine
Prograf	Tacrolimus
Rapamune	Sirolimus
Remicade	Infliximab
Sandimmune	Cyclosporine
Tysabri	Natalizumab
Rheumatrex	Methotrexate
Cimzia	Certolizumab Pegol

*This list is NOT inclusive.

Variable Name: **> 10% Loss of Body Weight in the 6 Months Prior to Surgery**

Program Legend: E, S-R, T

Intent of Variable: To capture patients with an unintentional weight loss which may indicate nutritional imbalances related to underlying disease.

Definition: A substantial unintentional drop in weight.

Criteria: A greater than 10% decrease in body weight in the *six month interval immediately preceding the principal operative procedure* manifested by:
- Serial weights in the chart; or
- Reported by the patient; or
- Evidenced by change in clothing size; or
- Severe cachexia

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
- Patients who have intentionally lost weight as part of a weight reduction program
- Patients who experience weight loss due to bariatric surgery

Notes:
- Calculation Guidance:
    - Current weight = 216lbs; six months prior weight to surgery = 238lbs.
    - 238 – 216 = 22; total weight loss = 22lbs.
    - 10% of 238 = 23.8
    - To assign variable weight loss must be $\geq$ 23.8 lbs.
    - Since weight loss (22lbs.) is < 23.8lbs., the variable would not be assigned

Variable Name: **Bleeding Disorders**

Program Legend: E, S-R, T

Intent of Variable: To capture patients with an increased risk for bleeding due to an underlying hematologic disorder or chronic anticoagulation. This may indicate a greater need for intra/postop transfusion, and might also affect wound healing and other complications.

Definition: Any chronic/persistent condition that places the patient at risk for excessive bleeding (e.g., vitamin K deficiency, hemophilia, thrombocytopenia, chronic anticoagulation therapy that has not been discontinued prior to surgery).

Criteria: Documented diagnosis in the medical record of a chronic/persistent hematologic disorder **or** the administration of medication (anticoagulants, antiplatelet agents, thrombin inhibitors, thrombolytic agents) that interferes with blood clotting thereby predisposing the patient to excessive bleeding.

Below is a non-exhaustive list of medications that can affect the patient's risk for bleeding. Please utilize the associated time frames for discontinuation of medication to determine "whether the patient can be considered OFF this medicine at the time of surgery". <u>The time frames are up to and including the day or hour listed</u>. If there is no documentation of discontinuation of medication, answer "Yes" for bleeding disorder.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Active heparin-induced thrombocytopenia (HIT)

Scenarios to Clarify (Do Not Assign Variable):
- Patient on chronic aspirin therapy
- Patient on Nonsteroidal Anti-inflammatory Drugs (NSAIDs)
- When medications are prescribed for prophylactic use, for the principal operative procedure only
- Patient with a history of HIT

Notes:
- Do not utilize lab values to determine the answer to this variable.

Anticoagulants

Brand Name	Generic	Stop before procedure time
Arixtra	Fondaparinux	4 days
Coumadin	Warfarin	4 days
Fragmin	Dalteparin	24 hours
Heparin – standard or unfractionated		6 hours
Heparin- Low molecular weight		24 hours
Lovenox	Enoxaparin	24 hours
	Pentasaccaride	4 days
	APC	12 hours
	Ximelagatran	24 hours
Trental	Pentoxifylline	24 hours

Antiplatelet Agents

Brand Name	Generic	Stop before procedure time
Aggrastat	Tirofiban	12 hours
Aggrenox	ASA/Dipyridamole	48 hours
Agrylin	Anagrelide HCL	3 days
Integrilin	Eptifibatide	12 hours
Persantine	Dipyridamole	48 hours
Plavix	Clopidogrel	5 days
Pletal	Cilostazol	2-4 days
ReoPro	Abciximab	96 hours
Ticlid	Ticlopidine	10 days
Effient	Prasugrel	7 days

Thrombin Inhibitors

Brand Name	Generic	Stop before procedure time
Angiomax	Bevalirudin	8 hours
Argatroban, Novastan	Argatroban	4 hours
Refludan	Lepirudin, Hirudin	8 hours
Xigris	Drotrecogin alpha	6 hours
Pradaxa	Dabigatran	5 days

Thrombolytic Agents

Brand Name	Generic	Stop before procedure time
Activase	Alteplase	4 hours
Retavase	Reteplase	4 hours
THKase	Tenecteplase	8 hours
Streptase, kabikinase	Streptokinase	24 hours
Alteplase	tPA	40 hours

Variable Name: **Preop Transfusions (RBC within 72 Hours Prior to Surgery Start Time)**

Program Legend: E, S-R, T

Intent of Variable: To capture patients who have received a preop blood transfusion. This may indicate an underlying disease process or deficiency that may compromise the patient's overall surgical outcome.

Definition: Preoperative blood loss or anemia necessitating transfusion of whole blood/packed red blood cells.

Criteria: Preoperative loss of blood or anemia necessitating any transfusion (minimum of 1 unit) of whole blood/packed red blood cells transfused during the 72 hours prior to the principal operative procedure surgery start time, including any blood transfused in the emergency room.

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
- Transfusions of RBC/PRBC

Scenarios to Clarify (Do Not Assign Variable):
- Transfusions of fresh frozen plasma (FFP), platelets, or volume expanders (e.g., crystalloids or colloids)

Notes:
-

Variable Name: **Sepsis** **within 48 Hours Prior to Surgery**

Program Legend: E, S-R, T

Intent of Variable: The intent is to capture the patient population, whose physiology is compromised by an ongoing inflammatory or infectious process, thereby increasing the patient's risk of complications during or after surgery.

Definition: Sepsis takes a variety of forms and spans from relatively mild physiologic abnormalities to septic shock.

> **SIRS (Systemic Inflammatory Response Syndrome):** A widespread inflammatory response to any of a variety of severe clinical insults.

> **Sepsis**: Sepsis is the systemic response to infection; it can be thought of as SIRS caused by infection.

> **Septic Shock:** Sepsis is considered severe when it is associated with organ and/or circulatory dysfunction.

Criteria: Report the **most significant** level (A, B, or C) using the criteria below: Septic shock is more severe than sepsis. Sepsis is more severe than SIRS. Criteria must be noted **within 48 hours prior to the principal operative procedure**:

A. **SIRS:**
Report this variable if the patient has at least **TWO** of the following five clinical signs and symptoms of SIRS**:**

1. Temp >38 ^{o}C (100.4 ^{o}F) or < 36 ^{o}C (96.8 ^{o}F)
2. HR >90 bpm
3. RR >20 breaths/min or $PaCO_2$ <32 mmHg (<4.3 kPa)
4. WBC >12,000 cell/mm^3, <4000 cells/mm^3, or >10% immature (band) forms
5. Anion gap acidosis: this is defined by either: (check with your Lab on calculation)
   a. [Na + K] – [Cl + HCO_3 (or serum CO_2)]. If this number is greater than 16, then an anion gap acidosis is present
   b. Na – [Cl + HCO_3 (or serum CO_2)]. If this number is greater than 12, then an anion gap acidosis is present

B. **Sepsis**:
Report this variable if the patient meets criteria to assign SIRS as listed above **AND** meets either scenario 1 or scenario 2:

> **Scenario 1**:   One of the following:
> a. Positive blood culture
> b. Clinical documentation of purulence or positive culture from any site for which there is correlating physician documentation that the site was thought to be the **acute** cause of the septic picture

> **OR**

Scenario 2: Suspected preoperative clinical condition of infection, or bowel infarction, which leads to the surgical procedure. The findings during the Principal Operative Procedure must confirm this suspected diagnosis with **ONE OR MORE** of the following:

     a. Confirmed ischemic/infarcted bowel (for instance, requiring resection)
     b. Purulence in the operative site
     c. Enteric contents in the operative site
     d. Positive intraoperative cultures

C. **Septic Shock:** Report this variable if the patient meets both of the following:
1. Sepsis criteria (B) above

   AND

2. Has documented organ and/or circulatory dysfunction.
   - Examples of organ dysfunction include: oliguria, acute alteration in mental status, acute respiratory distress.
   - Examples of circulatory dysfunction include: hypotension, requirement of inotropic or vasopressor agents.

Options:
- None
- SIRS
- Sepsis
- Septic Shock

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
- Patient meets SIRS criteria; however, they have only a positive culture from a chronic leg wound, which is otherwise unchanged in its chronic appearance. Sepsis would not be assigned, but SIRS would be assigned
- Cardiogenic, neurogenic, distributive or hypovolemic etiology in the absence of meeting above criteria
- In cases where there is a documented explanation or evidence that the criteria being reviewed for SIRS (i.e. HR, RR, Temp) are likely due to a cause other than an inflammatory or infectious process, SIRS should not be assigned. For instance, preoperatively a patient's heart rate and respiratory rate are elevated. Her WBC, temperature, and anion gap were all normal and there is no other evidence of infection. Nursing and physician documentation state the patient is anxious and teary-eyed about her diagnosis and concern for her family. As there is no evidence of an ongoing inflammatory process, it is highly unlikely that her elevated heart rate and respiratory rate are due to SIRS and are more likely due to anxiety. Therefore, this case will not meet SIRS criteria.

Notes:
- **Sepsis PATOS Reminder:** The following applies to the patients who have sepsis as a postoperative outcome: if preoperative data are highly suggestive or suspicious of Sepsis being present at the time of surgery, you will need to document **P**resent **A**t **T**ime **O**f **S**urgery (**PATOS**) under the postoperative

occurrence for sepsis. If the record indicates that sepsis was present at some point preoperatively <u>but fully and definitively resolved prior to the time of surgery</u>, then PATOS should not be chosen.

- **Sepsis PATOS Reminder**: If sepsis is noted as a postoperative outcome; select YES (for PATOS) if preoperative data are highly suggestive or suspicious of Sepsis **OR** the more severe level of Septic Shock is present at the time of surgery. If the record indicated that Sepsis **OR** the more severe level of Septic Shock was present at some point preoperatively but fully and definitively resolved prior to the time of surgery, then PATOS should not be chosen.

- **Septic Shock PATOS Reminder:** The following applies to the patients who have septic shock as a postoperative outcome: if preoperative data are highly suggestive or suspicious of Septic Shock being present at the time of surgery, you will need to document **P**resent **A**t **T**ime **O**f **S**urgery (**PATOS**) under postoperative occurrence for septic shock. If the record indicates that septic shock was present at some point preoperatively <u>but fully and definitively resolved prior to the time of surgery</u>, then PATOS should not be chosen.

PREOPERATIVE LAB VALUES

Variable Name: <mark>Preoperative Lab Value Information</mark>

Program Legend: E, S-R, T, MO

Intent of Variable: To capture patients with preoperative lab variances. Altered lab values may indicate an underlying disease process/state that may affect surgical outcomes

Definition: Diagnostic blood tests performed to evaluate a patient's physical status prior to the surgical visit or surgical procedure.

Criteria: All of the following preoperative lab values are to be reported if they are drawn <u>within</u> 90 days prior to the principal operative procedure. Report the lab value drawn closest to the documented principal operative procedure surgery start date and time.
- Serum Sodium (Na) (mmol/L)
- Blood Urea Nitrogen (BUN) (mg/dl)
- <mark>Serum Creatinine</mark> (Cr) (mg/dl)
- <mark>Albumin</mark> (Alb) (g/dl)
- <mark>Total Bilirubin</mark> (TB)(mg/dl)
- Aspartate Transaminase (AST) / Serum Glutamic-Oxaloacetic Transaminase (SGOT) (IntUnits/L)
- Alkaline Phosphatase (Alk Phos) (IntUnit/L)
- White Blood Cell Count (WBC) (K/cumm)
- Hematocrit (Hct) (%)
- <mark>Platelets</mark> (Plt) (K/cumm)
- International Normalized Ratio (INR) (unitless ratio)
- Partial Thromboplastin Time (PTT) (seconds)

Options:
- Enter value
- Enter date (mm/dd/yyyy)
- Unknown

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

OPERATIVE INFORMATION

Variable Name: **Emergency Case**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: The intent is to identify a patient population with heightened surgical risk due to an ongoing acute process that is currently having a negative impact on the patients' health and for which continued, potentially rapid deterioration could occur. The increased risk might be partly due to the fact that the procedure is being performed with limited preoperative preparation time and the surgical team does not necessarily have the ability to optimize the patient's status. The emergency case variable is not intended to capture urgent/semi-elective/elective cases.

Definition: An emergency case is usually performed within a short interval of time between patient diagnosis or the onset of related preoperative symptomatology. Emergency status is determined by anesthesiologist and/or surgeon.

Criteria: The case must meet the following criteria, A **AND** B below:

A. The NSQIP principal operative procedure must be performed during the hospital admission for the diagnosis

   AND

B. The surgeon and/or anesthesiologist must report the case as emergent

   ▪ In the case of a discrepancy in the assignment of this variable by the anesthesia and surgical teams, please consult with the attending surgeon to determine if the intent of this variable was met. **The attending surgeon's decision is definitive.**

Options:
- Yes
- No

Scenarios to clarify (Assign Variable):
- Case assigned as an emergency case by the surgeon and/or anesthesiologist, even if due to backlog the patient must wait for an OR to become available (the patient must be kept in the hospital and cannot be sent home)
   ▪ Patient comes to ER for ruptured appendix. Numerous traumas requiring emergent surgery take precedence and the patient must wait for surgery later that day. If the surgeon or anesthesiologist designates the case as emergent in the operative record, then assign the variable.

Scenarios to Clarify (Do Not Assign Variable):
- Urgent/semi-elective cases are not considered emergencies
- Patients who are discharged after diagnosis and return for an elective, semi-elective, or urgent procedure related to the diagnosis

Notes:

Variable Name: **Wound Classification**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture an important determinant of the risk of postoperative infection.

Definition: Wound classification determines the level of contamination of the surgical wound by estimating the bacterial load at the surgical site at the time of the principal operative procedure.

Criteria: Indicate whether the surgical team has classified the wound as:

A.   **Clean:**
An uninfected operative wound in which no inflammation is encountered and the respiratory, alimentary, genital, or uninfected urinary tract is not entered. In addition, clean wounds are primarily closed and, if necessary, drained with closed drainage. Operative incisional wounds that follow nonpenetrating (blunt) trauma should be included in this category if they meet the criteria.

- *Examples of "Clean" cases include mastectomy, vascular bypass graft, exploratory laparotomy, hernia repair, thyroidectomy, total hip or knee replacement, total hip replacements for avascular necrosis, removal of 'old' hardware without evidence of infection.*

B.   **Clean/Contaminated:**
An operative wound in which the respiratory, alimentary, genital or urinary tracts are entered under controlled conditions and without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina, and oropharynx are included in this category, provided no evidence of infection or major break in technique is encountered.

- *Examples of "Clean/Contaminated" cases include uncomplicated cholecystectomy, colectomy, colostomy reversals, roux-en-Y, laryngectomy, small bowel resection, transurethral resection of the prostate, Whipple pancreaticoduodenectomy.*

C.   **Contaminated:**
Open, fresh, accidental wounds. In addition, operations with major breaks in sterile technique or gross spillage from the gastrointestinal tract, and incisions in which acute, nonpurulent inflammation is encountered including necrotic tissue without evidence of purulent drainage (e.g., dry gangrene) are included in this category.

- *Examples of "Contaminated" cases include appendectomy for acute appendicitis, cholecystectomy for acute cholecystitis, or open surgical wounds returning to the OR.*

- *Examples of major break in sterile technique include but are not limited to non-sterile equipment or debris found in the operative field.*

D.   **Dirty/Infected:**
Old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera. This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation.

- Examples of "Dirty/Infected" cases include excision and drainage of abscess, perforated bowel, peritonitis, ruptured appendix, gangrenous gallbladder.

*Wound Class for Non-Skin Incision Surgeries (Natural Orifice): assign the wound classification based on which orifice was entered.

Options:
- Clean
- Clean/Contaminated
- Contaminated
- Dirty/Infected

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- ACS advises each SCR to discuss and develop an internal process for determining wound classification with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.
- Multiple surgical procedures performed with different incision sites = Assign wound classification based on the Principal Operative Procedure being reviewed in NSQIP.
    - *Example: Principal Operative Procedure: Carotid Endarterectomy (clean) Other Procedure: I & D of an infected right big toe (dirty/infected). The wound class assigned to this case would be clean.*
- Multiple surgical procedures performed in the same operative space, assign wound classification based on the most contaminated assessment of the space.
    - *Example: Principal Operative Procedure: Lysis of adhesions (clean) Other Procedure: cholecystectomy with gross bile spillage (contaminated). The wound class would be contaminated, as the spillage is in the same operative space as the Principal Operative Procedure.*
- Placement of a closed drain at the time of surgery does not change the classification of the wound.
- AORN makes the following statement regarding major breaks in sterile technique, "The term major break is used throughout the wound classification schema although it is not clearly defined in regard to aseptic technique; therefore, clinical judgment again becomes instrumental. Major breaks in aseptic technique may include those that come in direct contact with a patient (e.g., skin-to-skin) or those that are indirect through a malfunction of environmental controls" (Chard, 2008)[4].

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[4] Chard, R. (2008). Wound classification. *Find Articles*. Retrieved May 29, 2012 from
http://findarticles.com/p/articles/mi_m0FSL/is_1_88/ai_n27912210/

Variable Name: **Surgical Wound(s) Closure**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To differentiate three clinical scenarios with respect to wound closure. This will assist in matching NSQIP data to other data systems. This also allows more relevant classification of postoperative infections.

Definition: This variable classifies three layers of wound closure.

Criteria: Code the most complete closure of any incision based on the criteria below:

A. **All layers of incision (deep and superficial) are fully closed by some means.** Often referred to as "Incision Primarily Closed." This category includes complex reconstructive cases where autologous grafts or biologic or synthetic materials are used to reconstruct the closure of the site, as long as the reconstruction is ultimately covered or closed at the skin level. For example, biologic dermal grafts might be used to reconstruct fascial closure of an abdominal hernia, and would still be included in this category. Furthermore, if an incision is described as being "loosely closed" at the skin, or closed with "wicks" employed in the skin, the case would still be included in this category.

B. **Only deep layers of incision are closed; superficial layers are left open.** For example, for a laparotomy this would occur when the fascial layers are closed but the skin and subcutaneous tissues are left open (usually due to concerns about infection). The wound may or may not be described as "packed" with gauze or other material.

C. **No layers of the incision are surgically closed.** For example, for a laparotomy with findings of catastrophic bowel infarction, the fascia might not even be closed. Often such "open abdomen" cases are simply covered with plastic or other synthetic material. At times such cases are reexplored one or more times, and ultimately reapproximation of the abdominal wall might or might not be undertaken. Sometimes these wounds are allowed to granulate and heal by secondary intention, or might be covered with skin allografts or other biologic material at a subsequent operation.

Options:
- All layers of incision (deep and superficial) fully closed
- Only deep layers closed; superficial left open
- No layers of incision are surgically closed

Scenarios to Clarify (Assign Variable):
- Assign the surgical wound closure that applies when the patient leaves the OR from the principal operative procedure
- If there were multiple incisions or access sites involved in the index procedure, choose the answer corresponding to the most complete level of closure of any incision
- Assign "All layers of incision (deep and superficial) fully closed" in the following example settings:
  - Laparoscopic Colectomy with hand-assist incision and three port sites, all closed primarily
  - Laparoscopic Colectomy with hand-assist incision and three port sites, port sites closed but hand site open. In such a situation, the port sites have the potential for developing superficial, deep, or organ space infection. The hand incision site has the potential for only developing deep or organ

space infection (since skin was left opened). Should the patient develop any SSI, assign in accordance with the SSI variable definition

- If there were multiple incisions or access sites involved in the index procedure with some entry sites primarily closed and others were left open…assign All layers of incision (deep and superficial) are fully closed by some means
- If there is no incision to close (e.g., tonsillectomy, TURPS, LEEPS)…assign All layers of incision (deep and superficial) are fully closed by some means
- If a drain is placed during the principal operative procedure and the incision is otherwise reapproximated….All layers of incision (deep and superficial) are fully closed by some means
- Puncture site where pressure is held to "close" the wound….assign All layers of incision (deep and superficial) are fully closed by some means

Scenarios to Clarify (Do Not Assign Variable):

-

Notes:

- To clarify terms: "Closed Primarily" means closed during the original surgery. If a wound is not "Closed Primarily" it can either "Closed Secondarily" at some later date, or be described as "healing by secondary intention", meaning that it is allowed to granulate on its own and scab over and heal without ever undergoing deliberate surgical closure. Again guidance is to classify the surgical wound closure that applies when the patient leaves the OR from the principal operative procedure.

Variable Name: ASA Classification

Program Legend: E, S-R, T, MO, FL

Intent of Variable: ASA class is intended to capture patient disease levels which affect the risk of anesthesia and surgery.

Definition: The American Society of Anesthesiology (ASA) Physical Status Classification of the patient's present physical condition on a scale from 1-6 as it appears on the anesthesia record. The ASA Classifications are as follows:
- **ASA 1 –** Normal healthy patient
- **ASA 2 –** Patient with mild systemic disease
- **ASA 3 –** Patient with severe systemic disease
- **ASA 4 –** Patient with severe systemic disease that is a constant threat to life
- **ASA 5 –** Moribund patient who is not expected to survive without the operation
- **ASA 6 –** Declared brain-dead patient whose organs are being removed for donor purposes
  (NOTE: ASA 6 cases are not accrued in NSQIP)
- **None Assigned –** For cases performed under local anesthesia that meet inclusion criteria but do not have an ASA class assigned, report as 'none assigned'. For cases that are not local anesthesia cases, an ASA class must be assigned.

Criteria: Report the ASA category, 1 – 5, assigned to the patient as it appears on the anesthesia record.

Options:
- ASA 1 – No Disturb
- ASA 2 – Mild Disturb
- ASA 3 – Sever Disturb
- ASA 4 – Life Threat
- ASA 5 – Moribund
- None Assigned

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- ACS advises each SCR to discuss and develop an internal process for determining the ASA with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.
- Some hospitals may note the ASA classification as the 'Acuity Code.'
- If there is a second assessment available prior to anesthesia induction, report this most recent assessment.

OPERATIVE TIMES

Variable Name: **Procedure/Surgery Start Time (PST)**

Program Legend: E, S-R, T

Intent of Variable: To capture the time the principal operative procedure has begun (e.g., incision for a surgical procedure). This variable is often used to determine total time of surgical procedure.

Definition: Time the procedure began (e.g., incision for a surgical procedure).

Criteria:
- Procedure start time is recorded on the anesthesia, nursing, or operative record.
- There must be a recorded start time.

Options:
- Date (mm/dd/yyyy)
- Time (hh:mm)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: **Procedure/Surgery Finish (PF)**

Program Legend: E, S-R, T

Intent of Variable: To capture the time when the physician/surgeons have completed all procedure-related activities on the patient. This variable is often used to determine total time of surgical procedure.

Definition: Time when the physician/surgeons have completed all procedure-related activities on the patient.

Criteria:
- Procedure finish time is recorded on the anesthesia, nursing, or operative record.
- There must be a recorded finish time.

Options:
- Date (mm/dd/yyyy)
- Time (hh:mm)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- Should the patient expire in the operating room, indicate the time the patient was pronounced dead.

ADDITIONAL OPERATIVE PROCEDURES

Variable Name: **Other Procedure**

Program Legend: E, S-R, T

Intent of Variable: To capture additional operative procedures performed by the same surgical team (e.g. under direction of the same surgical attending) under the same anesthetic, which have CPT® codes different from that of the Principal Operative Procedure. In some cases, additional captured CPT® codes might be analyzed separately from the principal operative procedure code. This makes it in the best interest of the program to capture all relevant CPT® codes.

Definition: An additional operative procedure performed by the same surgical team, under the same anesthetic which has a CPT® code different from that of the Principal Operative Procedure. Report ALL additional procedures/CPT® codes for this OR visit.

Criteria:
- Any additional CPT® code is eligible for this variable, regardless of whether it is on the NSQIP CPT® Code Inclusion List.

Options:
- Enter CPT® Code
- Enter Procedure Description (optional)

Scenarios to Clarify (Assign Variable):
- Dr. Smith is a general surgeon and his team performs a colectomy and appendectomy; enter the appendectomy as an "other" procedure, as the same surgical team performed all of the procedures listed under the same anesthetic.

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

- ACS advises each SCR to discuss and develop an internal process for determining the other procedure with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.
- To signify that a bilateral procedure was performed enter the CPT code as the Principal Operative Procedure and again as an Other or Concurrent Procedure.

Variable Name: **Concurrent Procedure**

Program Legend: E, S-R, T

Intent of Variable: To capture concurrent procedures performed by a different surgical team (e.g. under direction of a different surgical attending) and under the same anesthetic which have CPT® codes different from that of the Principal Operative Procedure. In some cases, additional captured CPT® codes might be analyzed separately from the principal operative procedure code. This makes it in the best interest of the program to capture all relevant CPT® codes.

Definition: A procedure performed by a different surgical team or surgeon, under the same anesthetic which has a CPT® code different* from that of the Principal Operative Procedure.

*Certain CPT® codes can be billed for a patient more than one time reflecting repeated performance of a particular procedure. In such cases the codes could be considered different.

Criteria:
- Any additional CPT® code is eligible for this variable, regardless of whether it is on the NSQIP CPT® Code Inclusion List.

Options:
- Enter CPT® Code
- Enter Procedure Description (optional)

Scenarios to Clarify (Assign Variable):
- Dr. Smith is a neurosurgeon whose team performs a vertebrectomy/laminectomy and Dr. Doe is a neurosurgeon who performs a reconstruction of vertebra, posterior arthrodesis, and posterior segmental stabilization using screws/rods. Enter one procedure as the principal operative procedure and the other as a "concurrent" procedure, as two different surgical attending's performed procedures under the same anesthetic.

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

- ACS advises each SCR to discuss and develop an internal process for determining the concurrent procedure with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.
- To signify that a bilateral procedure was performed enter the CPT code as the Principal Operative Procedure and again as an Other or Concurrent Procedure.

POSTOPERATIVE OCCURRENCES

*Guidance: A postoperative occurrence must be reported if it presents within 30 days following the principal operative procedure AND meets any of the corresponding variable criteria. Each day comprising this 30 day postop period is commonly referred to as a **p**ost**o**p **d**ay or POD. The 30-day postop period begins the date the patient's surgery ends. This date is considered postop day (POD) "0", the next day POD 1, etc.*

This section includes both variables and additional guidance

Present at Time of Surgery (PATOS)

Program Legend: E, S-R, T, MO, FL

Intent: Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: PATOS captures a condition or diagnosis that the patient has at the time of the start of or during the index surgical procedure (in other words, it is present preoperatively). Included conditions or diagnoses are limited to the following:

- Wound Occurrence: superficial, deep, organ/space
- Pneumonia
- On Ventilator > 48 hours
- UTI
- Sepsis
- Septic Shock

Criteria: The case must meet the following criteria, A **AND** B below:

A. The respective postoperative occurrence is noted

   AND

B. The case meets the PATOS criteria for inclusion as detailed in the criteria section specific to each of these occurrences.

Notes:

- PATOS does not apply if there is a period of wellness between the time of this preoperative condition and surgery.

WOUND OCCURRENCES

Additional Guidance: SSI Guidance – Surgical Wound Closure

Program Legend: E, S-R, T, MO, FL

Intent: To provide guidance on assigning surgical site infections.

Skin Left Open	Abdominal Site	"Other Surgical Sites"
	Cannot assign a postoperative Superficial Incisional SSI	**Cannot** assign a postoperative Superficial Incisional SSI
	Can assign a postoperative Deep Incisional SSI: **only if** there is/was evidence of interval resolution of the initial finding of infection, or that the current finding was not present at the time of surgery or is clearly separate from the finding at surgery.	**Can** assign a postoperative Deep Incisional SSI, **only if** there is/was evidence of interval resolution of the initial finding of infection and some layer(s) of tissues superficial to the identified deep infection were closed; example, muscle or fascia beneath SQ fat developed evidence of infection when the fascia has been closed. If fascia had been left open there can't be a deep infection at the fascial level, but could still go on to have an infection at some deeper level or an organ/space SSI.
	Can assign an Organ/Space SSI: **only if** there is/was evidence of interval resolution of the initial finding of infection, or that the current finding was not present at the time of surgery or is clearly separate from the finding at surgery.	**Can** assign an Organ/Space SSI: only if there is/was evidence of interval resolution of the initial finding of infection, or that the current finding was not present at the time of surgery or is clearly separate from the finding at surgery. **Example**: an infection develops that was not present at surgery or after the finding at surgery had resolved, which is not open to air (e.g., some layer of tissue is interposed between the infection and the open wound).
	Can assign a Wound Disruption: only if the current finding (disruption) was not present at the time of surgery, refers primarily to loss of the integrity of fascial closure (or whatever closure was performed in the absence of fascial closure) for abdominal surgery.	**Can** assign a Wound Disruption **Guidance**: there must be a total breakdown of the surgical closure such that the integrity of the procedure which was performed is compromised. An example would be tissue flap coverage where the surgical incisions which were closed have lost the integrity of closure. An ostomy with a small separation around it would NOT qualify.

Additional Guidance: Assigning Multiple SSI's

Program Legend: E, S-R, T, MO, FL

Intent: To provide guidance on assigning multiple surgical site infections.

| Assigning Multiple SSI's	Guidance
Superficial SSI and Deep SSI	Cannot log both—if Deep then assign Deep only
Deep SSI and Organ/Space SSI	Can be logged separately, only if there is clear evidence that the organ/space infection is separate from the incisional infection. If there is not adequate evidence to clearly say that the organ/space infection is separate from the incisional issue, cannot log both---if Deep then assign Deep only
Superficial and Organ/Space SSI	Can assign both
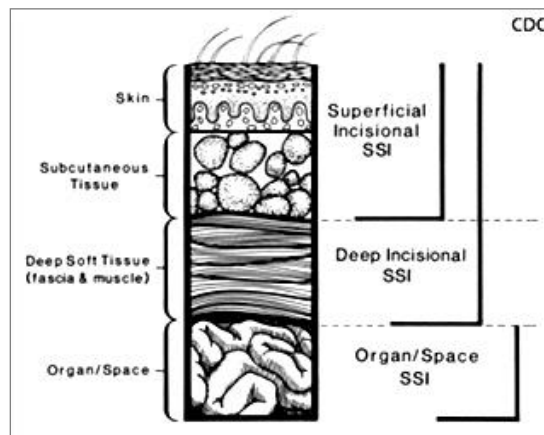
Figure 1: Cross-section of abdominal wall depicting classifications of surgical site infection

Variable Name: <mark>Superficial Incisional SSI</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the occurrence of infection that does not meet the more severe criteria of deep incisional SSI or organ/space SSI.

Definition: Superficial incisional SSI is an infection that involves only skin or subcutaneous tissue of the surgical incision.

Criteria: An infection that occurs within 30 days after the principal operative procedure **AND** the infection involves only skin or subcutaneous tissue of the incision **AND** at least **ONE** of the following:

A.   Purulent drainage, with or without laboratory confirmation, from the superficial incision

B.   Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision

C.   At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat AND superficial incision is deliberately opened by the surgeon, unless incision is culture-negative

D.   Diagnosis of superficial incisional SSI by the surgeon or attending physician

Options:
- Select "Superficial Incisional SSI" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Superficial SSI which occurs at a drain site, in which the drain was placed during the principal operative procedure.

Scenarios to clarify (Do Not Assign Variable):
- Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration)
- Infected burn wound
- Incisional SSI that extends into the fascia and muscle layers (see deep incisional SSI)
- Diagnosis of cellulitis alone
- If wound closure for the principal operative procedure is documented as "superficial layers are left open" or "no layers closed"
- Report infection that involves both superficial and deep incision sites as deep incisional SSI

Notes:
- See SSI Guidance Table for additional information.
- Only SSIs at the incision site of the principal operative procedure should be assessed. Incision sites for "other" or "concurrent" procedures, if they are in distinctly different anatomical sites should not be assessed. If there is question as to whether or not an incision site was an integral portion of the principal

operative procedure, include this site in your SSI assessment. Please note: a single principal operative procedure can have more than one incision.

Variable Name: **Superficial Incisional SSI – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients who enter the operating room with evidence or suspicion of an existing superficial infection at the surgical site. Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: Evidence/suspicion of an active superficial infection (e.g., skin / subcutaneous) noted at the time the patient enters the OR, or intraoperatively.

Criteria: The case must meet the following criteria, A **AND** B below:

A. Superficial Incisional SSI is assigned as a postoperative occurrence

   AND

B. Evidence or suspicion of a superficial infection found at the intended surgical site. This must be noted preoperatively or found intraoperatively at the surgical site and may include an open wound, cellulitis (erythema, tenderness AND swelling), or wound infection.

Options:
- Yes
- No
- Comments (optional)

Scenarios to clarify (Assign Variable):
- A postop superficial infection is assigned; Intraoperatively during the surgical "time out", cellulitis is noted at the intended surgical site prior to incision

Scenarios to clarify (Do Not Assign Variable):
- If a superficial SSI has not been assigned as a postop occurrence

Notes:
- If a Superficial Incisional SSI is assigned as a postoperative occurrence -- only Superficial Incisional SSI PATOS can be assigned if the patient meets criteria for Superficial Incisional PATOS **[Cannot assign Deep Incisional or Organ/Space PATOS unless the corresponding postoperative occurrence is assigned]**

Variable Name: <mark>Deep Incisional SSI</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the occurrence of infection that does not meet the criteria of superficial incisional SSI or organ/space SSI. These infections are typically more severe than the superficial SSI category.

Definition: Deep Incisional SSI is an infection which involves deep soft tissues. Deep soft tissues are typically any tissue beneath skin and immediate subcutaneous fat, for example fascial and muscle layers.

Criteria: An infection that occurs at the surgical site within 30 days after the principal operative procedure **AND** involves deep soft tissues **AND** at least **ONE** of the following:

A. Purulent drainage from the deep incision but not from the organ/space component of the surgical site

B. A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (> 38° C), localized pain, or tenderness, unless the site is culture-negative

C. An abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation, or by histopathologic or radiologic examination

D. Diagnosis of a deep incision SSI by a surgeon or attending physician

Options:
- Select "Deep Incisional SSI" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Report an infection that involves both superficial and deep incision sites as deep incisional SSI
- Report an organ/space SSI that drains through the incision as a deep incisional SSI

Scenarios to clarify (Do Not Assign Variable):
-
-

Notes:
- See SSI Guidance Table for additional information
- Only an SSI at the incision site of the principal operative procedure should only be assessed. Incision sites for "other" or "concurrent" procedures, if they are in distinctly different anatomical sites should not be assessed. If there is question as to whether or not an incision site was an integral portion of the principal operative procedure, include this site in your SSI assessment.

Variable Name: **Deep Incisional SSI – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients who enter the operating room with evidence or suspicion of a deep infection at the surgical site. Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: Evidence/suspicion of an active deep layer infection (e.g., muscle and fascial layers) noted at the time the patient enters the OR, or intraoperatively.

Criteria: The case must meet the following criteria, A **AND** B below:

   A. Deep Incisional SSI is assigned as a postoperative occurrence

       AND

   B. Evidence or suspicion of a deep infection (e.g., muscle and fascial layers) found at the intended surgical site. This must be noted preoperatively or found intraoperatively at the surgical site and may include an open wound, cellulitis (erythema, tenderness AND swelling), or wound infection.

Options:
   - Yes
   - No
   - Comments (optional)

Scenarios to clarify (Assign Variable):
   -

Scenarios to clarify (Do Not Assign Variable):
   - Deep incisional SSI has not been assigned as a postop occurrence

Notes:
   - If a Deep Incisional SSI is assigned as a postoperative occurrence, then -- only Deep Incisional SSI PATOS can be assigned if the patient meets criteria for Deep Incisional SSI PATOS [**Cannot assign Superficial or Organ/Space PATOS]**

Variable Name: Organ/Space SSI

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the occurrence of infection that does not meet the criteria of superficial incisional SSI or deep incisional SSI. This category of infection is typically the most severe and is more likely to require procedural intervention.

Definition: Organ/Space SSI is an infection that involves any part of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during an operation.

Criteria: An infection that occurs within 30 days after the principal operative procedure **AND** involves any of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during the operation **AND** at least **ONE** of the following:

A. Purulent drainage from a drain that is placed through a stab wound into the organ/space. This does not apply to drains placed during the principal operative procedure, which are continually in place, with continual evidence of drainage/infection since the time of the principal operative procedure

B. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space

C. An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination

D. Diagnosis of an organ/space SSI by a surgeon or attending physician

Options:
- Select "Organ/Space SSI" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Anastomotic leaks involving the GI or GU system or which involve enteric contents

Scenarios to clarify (Do Not Assign Variable):
- Report an organ/space SSI that drains through the incision as a deep incisional SSI
- Fistulas alone, unless they independently meet the other criteria listed above
- Anastomotic leaks involving vasculature (e.g. lower extremity bypass), unless one of the 4 criteria above is met

Notes:
- See Site-Specific Classifications of Organ/Space Surgical Site Infection Table below
- Only SSIs at the incision site of the principal operative procedure should be assessed. Incision sites for "other" or "concurrent" procedures that are in distinctly different anatomical sites should not be assessed. If there is question as to whether or not an incision site was an integral portion of the principal operative procedure, then include this site in your SSI assessment.

*Figure 1 below may help to clarify/distinguish the anatomical location of Organ/Space infections.

Site-Specific Classifications of Organ/Space Surgical Site Infection	
Arterial or venous infection	Mediastinitis
Breast abscess or mastitis	Meningitis or ventriculitis
Disc space	Myocarditis or pericarditis
Ear, mastoid	Oral cavity (mouth, tongue, or gums)
Endocarditis	Osteomyelitis
Endometritis	Other infections of the lower respiratory tract (e.g., abscess or empyema)
Eye, other than conjunctivitis	Other male or female reproductive tract
Gastrointestinal tract	Sinusitis
Intra-abdominal, not specified elsewhere	Spinal abscess without meningitis
Intracranial, brain abscess or dura	Upper respiratory tract
Joint or bursa	Vaginal cuff

Variable Name: **Organ/Space SSI – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients who enter the operating room with evidence or suspicion of an organ/space infection at the surgical site. Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: Evidence/suspicion of an active organ/space infection noted at the time the patient enters the OR, or intraoperatively.

Criteria: The case must meet the following criteria, A **AND** B below:

 A. Organ/space SSI is assigned as a postoperative occurrence

 AND

 B. Evidence or suspicion of an abscess or other infection involving the organ or space manipulated during the operation. This must be noted preoperatively or found intraoperatively in the surgical space.

Options:
- Yes
- No
- Comments (optional)

Scenarios to clarify (Assign Variable):
-

Scenarios to clarify (Do Not Assign Variable):
- Organ/Space SSI has not been assigned as a postop occurrence

Notes:
- If an Organ/Space SSI is assigned as a postoperative occurrence—only Organ/Space SSI PATOS can be assigned if the patient meets criteria for Organ/Space SSI PATOS **[Cannot assign Superficial or Deep PATOS]**
  - **Exception:** If an Organ/Space SSI that drains through the incision is assigned as a deep incisional SSI, PATOS can be assigned if the patient meets criteria for Organ/Space SSI PATOS.

Variable Name: <mark>Wound Disruption</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture cases where the integrity of the surgical closure has been compromised.

Definition: The spontaneous reopening of a previously surgically closed wound**.**

Criteria: A spontaneous reopening of a surgically closed wound that occurs within 30 days after the principal operative procedure **AND** one of the following criteria A **OR** B below:

A. **Abdominal site**: refers primarily to loss of the integrity of fascial closure (or whatever closure was performed in the absence of fascial closure)

OR

B. **Other Surgical Sites**: there must be a total breakdown of the surgical closure compromising the integrity of the procedure

Options:
- Select "Wound Disruption" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Tissue flap coverage where the surgical incisions, which were closed, have lost the integrity of closure
- Above the knee amputation wound which spontaneously opens exposing the bone

Scenarios to clarify (Do Not Assign Variable):
- An ostomy with a small separation around it

Notes:

RESPIRATORY OCCURRENCES

Variable Name: <mark>Pneumonia</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patient(s) that developed an ongoing infectious process involving the lung(s) postoperatively affecting their physiology as described.

Definition: Pneumonia is an infection of one or both lungs caused by bacteria, viruses, fungi, or aspiration. Pneumonia can be community acquired or acquired in a healthcare setting.

Criteria: The case must meet Radiology (A) criteria **AND** <u>ONE</u> of the following <u>TWO</u> Signs/Symptoms/Laboratory (B) scenarios as listed below within the 30 days after the principal operative procedure. **The criteria should be linked by a period of continuous symptomatology.**

   A. <u>Radiology:</u>
      <u>ONE</u> definitive chest radiological exam (x-ray or CT)* with at least <u>ONE</u> of the following:
      - New or progressive <u>and</u> persistent infiltrate
      - Consolidation or opacity
      - Cavitation

   Note: In patients **with** underlying pulmonary or cardiac disease (e.g. respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), **two or more serial chest radiological exams (x-ray or CT)** are required. <u>**The two exams should both confirm the diagnosis or the first exam should serve as a baseline exam which allows the second exam to establish the definitive new diagnosis.**</u> Postoperatively, serial radiological exams should be taken no less than 12 hours apart, but not more than 7 days apart. In contrast, a preoperative x-ray used as a baseline must have been obtained within 30 days of the principal operative procedure or at the time the patient is being considered a candidate for surgery.

   For postop events, the occurrence should be assigned on the date the patient first met all of the criteria of the definition.

   EXAMPLE:
   The patient you are reviewing has a history of COPD, a baseline preoperative chest x-ray was taken on May 25th and the patient underwent surgery on June 10th. On POD #4, the patient developed a temperature of 101.5 and the WBC returned at 13.5. On POD #5, a chest x-ray was ordered and revealed a new infiltrate in the left lower lobe. On POD #6, the patient began coughing up green sputum and auscultation revealed crackles. The patient meets the criteria to assign the postop occurrence of pneumonia on POD #6, as this is when the patient met all of the criteria of the definition.

B. **Signs/Symptoms/Laboratory:**
SCENARIO #1

At least **ONE** of the following:
- Fever (>38^{0}C or >100.4^{0}F) with no other recognized cause
- 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:
- 5% Bronchoalveolar lavage (BAL) -obtained cells contain intracellular bacteria on direct microscopic exam (e.g., Gram stain)
- Positive growth in blood culture not related to another source of infection
- Positive growth in culture of pleural fluid
- Positive quantitative culture from minimally contaminated lower respiratory tract (LRT) specimen (e.g. BAL or protected specimen brushing)

OR

SCENARIO #2

At least **ONE** of the following:
- Fever (>38^{0}C or >100.4^{0}F) with no other recognized cause
- 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 **TWO** of the following:
- New onset of purulent sputum, or change in character of sputum, or increased respiratory secretions, or increased suctioning requirements
- New onset or worsening cough, or dyspnea, or tachypnea
- Rales (crackles) or rhonchi
- Worsening gas exchange (e.g. O$_2$ desaturations (e.g., PaO$_2$/FiO$_2$ ≤ 240), increased oxygen requirements, or increased ventilator demand)

Options:
- Select "Pneumonia" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- If the patient has aspiration pneumonitis or aspiration pneumonia and meets the criteria of the pneumonia definition

Scenarios to clarify (Do Not Assign Variable):
- Documentation of airspace disease and densities on an x-ray would not qualify. Airspace disease may be referring to infection. If this is not clearly defined by the radiologist this description cannot be used. Densities may be referring to tumors rather than evidence of infection.
- A sputum culture is not considered a lower respiratory tract (LRT) specimen and cannot be utilized to assign pneumonia.
- Pneumonia progressing to another lobe is not a new pneumonia.
- X-rays that show possible pneumonia without clear documentation of opacity, cavitation, infiltrate, or consolidation

Notes:
- Physician diagnosis of pneumonia and treatment are not required and are not sufficient to assign this variable.
- Serial radiological exams (for those patients with underlying disease as noted above) should be taken no less than 12 hours apart, but not more than seven days apart. The occurrence should be assigned on the date the patient first met all of the criteria of the definition (e.g., if the patient meets all PNA criteria on the day of the first x-ray, assign this date to the occurrence). Do not assign the date of the occurrence to when the second serial x-ray was performed.

Variable Name: **Pneumonia – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients who enter the OR with evidence of pneumonia or symptoms that are highly suggestive or suspicious of pneumonia. PATOS modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in the Semiannual Report (SAR) modeling.

Definition: Evidence/suspicion of active pneumonia noted at the time the patient enters the OR, or intraoperatively.

Criteria: The case must meet the following criteria, A **AND** B below:

> A. Pneumonia is assigned as a postoperative occurrence
>
> **AND**
>
> B. Preoperative data are highly suggestive or suspicious of pneumonia

Options:
- Yes
- No
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Preoperative physician diagnosis of pneumonia on the day of surgery
- Preoperative diagnosis of pneumonia (day of surgery or prior) with patient undergoing treatment at time of surgery
- Preoperative X-ray results stating pneumonia and patient being treated at time of surgery
- Patient being treated for pneumonia at the time of surgery

Scenarios to clarify (Do Not Assign Variable):
- Pneumonia has not been assigned as a postop occurrence

Notes:
- PATOS criteria are frequently less stringent than criteria for an analogous preoperative risk factor or postoperative occurrence. This means at times PATOS can be assigned to a postoperative occurrence despite the fact that criteria for a preoperative risk factor may not be met.

Variable Name: <mark>Intraoperative OR Postoperative Unplanned Intubation</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: The variable intent is to capture **all** unplanned intubations for **any reason/cause**, including, but not limited to, unplanned intubations for refractory hypotension, cardiac arrest, and inability to protect airway.

Definition: The placement of an endotracheal tube or other similar breathing tube [Laryngeal Mask Airway (LMA), nasotracheal tube, etc.] and ventilator support.

Criteria: An unplanned intubation must be noted intraoperatively or within 30 days after the principal operative procedure **AND** the following criteria, A **AND** B below:

A. Patient required placement of an endotracheal tube or other similar breathing tube
   [Laryngeal Mask Airway (LMA), nasotracheal tube, etc.]

   AND

B. Patient required ventilator support, which was not intended or planned.

Options:
- Select "Unplanned Intubation" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Patients who were intubated for their surgery, an unplanned intubation occurs after the patient has been extubated
- Accidental self extubation requiring reintubation
- For patients who were not intubated for the principal operative procedure or a return to the OR, intubation at any time after their surgery is complete
- Emergency tracheostomy

Scenarios to clarify (Do Not Assign Variable):
- CPAP, BiPAP, etc.
- Patients undergoing time off the ventilator during weaning trial and who fail the trial and are placed back on the ventilator
- Intubations for an unplanned return to the OR would not be assigned, as the intubation is planned, it is the return to the OR which is unplanned. For patients who were intubated for a return to the OR for a surgical procedure, unplanned intubation occurs after they have been extubated after surgery
- Intraoperative conversion from local or MAC anesthesia to general anesthesia, during the Principal Operative Procedure, with placement of a breathing tube and ventilator support, secondary to the patient not tolerating local or MAC anesthesia, in the absence of an emergency, would not be assigned.
    - **Example:** Patient undergoes an inguinal hernia repair under MAC, but, patient doesn't tolerate the procedure well and is not cooperating; anesthesia switches to general and the patient is intubated.

This scenario would not be assigned as an unplanned intubation; it is considered part of the normal safe management of anesthesia for the case.

Notes:

- Patients with a chronic/long-term tracheostomy who are on and off the ventilator would not be assigned, unless the tracheostomy tube itself is removed and the patient requires reintubation (endotracheal or a new tracheostomy tube) or an emergency tracheostomy.

Variable Name: <mark>Pulmonary Embolism</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: The identification of a new blood clot in a pulmonary artery causing obstruction (complete or partial) of the blood supply to the lungs. However, since there are not always preoperative studies proving that a clot or thrombus was not present preoperatively, the technical specification of the variable requires only a "new diagnosis"- in other words *the clot or thrombus was not previously known*.

Definition: 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.

Criteria: A pulmonary embolism must be noted within 30 days after the principal operative procedure **AND** the following criteria, A **AND** B below:

A. *New* diagnosis of a new blood clot in a pulmonary artery

AND

B. The patient has a V-Q scan interpreted as high probability of pulmonary embolism or a positive CT exam, TEE, pulmonary arteriogram, CT angiogram, or any other definitive imaging modality *(including direct pathology examination such as autopsy)*

Options:
- Select "Pulmonary Embolism" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
-

Scenarios to clarify (Do Not Assign Variable):
- Pulmonary emboli diagnosed prior to the principal operative procedure
- Cement PE (if this diagnosis is definitive)
- Fat PE (if this diagnosis is definitive)

Notes:

Variable Name: On Ventilator > 48 Hours

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture patients who have a total cumulative duration of ventilator-assisted respirations greater than 48 hours during the postoperative hospitalization and any subsequent hospitalizations within 30 days after principal operative procedure.

Definition: Total cumulative time of ventilator-assisted respirations exceeding 48 hours.

Criteria: The total CUMULATIVE time a patient is receiving ventilator support, exceeding 48 hours within 30 days after the principal operative procedure.

Options:
- Select "On Ventilator > 48 hours" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- If the patient was discharged from the OR intubated and remains on ventilator support more than 48 hours, assign the date 48 hours from the 'Patient Out of Room' time.
- If the patient is on the ventilator for greater than 48 hours (cumulatively) postoperatively, regardless of ventilator status preoperatively.
- If the patient was readmitted and placed on ventilation for greater than 48 hours (cumulatively) postoperatively, within the 30 day timeframe.
- If the patient is extubated in the OR and requires intubation at any point within 30 days, the date recorded should be the point at which the 48 cumulative hours have been reached.

Scenarios to clarify (Do Not Assign Variable):
- CPAP, BiPAP, etc.
- Cumulative time periods during weaning trials off the ventilator

Notes: Time the patient spends intubated during any return to the OR, while the patient is in the operating room suite, within the 30 day postoperative timeframe, does not count in the cumulative time to assign the variable. Time intubated during a return to OR reflects the proper safe management of the patient for the reoperation; it does not necessarily reflect respiratory failure/insufficiency requiring vent support.

Variable Name: On Ventilator > 48 Hours – PATOS

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients who are either: 1) intubated and receiving mechanical ventilator support upon entering the operating room, or 2) requires an unplanned intubation intraoperatively prior to the initiation of anesthesia for the principal operative procedure. Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in the Semiannual Report (SAR) modeling.

Definition: To identify patients who are intubated and receiving mechanical ventilator support upon entering the operating room **OR** requires an unplanned intubation intraoperatively prior to the initiation of anesthesia for the principal operative procedure.

Criteria: The case must meet the following criteria, A **AND** B below:

    A. On the Ventilator > 48 Hours is assigned as a postoperative occurrence

    AND

    B. One of the following scenarios (1 or 2):

        1. The patient is intubated and receiving mechanical ventilator support upon entering the operating room

        OR

        2. The patient requires an unplanned intubation intraoperatively prior to the initiation of anesthesia for the principal operative procedure.

Options:
- Yes
- No
- Comments (optional)

Scenarios to clarify (Assign Variable):
-

Scenarios to clarify (Do Not Assign Variable):
- CPAP, BiPAP, etc.
- Patients who required intubation and ventilator support at some point prior to the principal operative procedure, but who are not intubated and receiving ventilator support prior to the initiation of anesthesia for the principal operative procedure

Notes:

- PATOS criteria are frequently less stringent than criteria for an analogous preoperative risk factor or postoperative occurrence. This means at times PATOS can be assigned to a postoperative occurrence despite the fact that criteria for a preoperative risk factor may not be met.

URINARY TRACT OCCURRENCES

Variable Name: <mark>Progressive Renal Insufficiency/Acute Renal Failure Requiring Dialysis</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify the patient with significant renal compromise at their most severe renal insufficiency/failure stage.

Definition:
Progressive Renal Insufficiency: the reduced capacity of the kidney(s) to perform its function in comparison to the preoperative state.

Acute Renal Failure Requiring Dialysis: A clinical condition associated with significant decline of kidney function in comparison to the preoperative state.

Criteria: Progressive Renal Insufficiency **OR** Acute Renal Failure Requiring Dialysis must be noted within 30 days after the principal operative procedure **AND** the following criteria, A **OR** B below, *reporting the most severe level:*

A. Progressive Renal Insufficiency: A rise in creatinine of >2 mg/dl from preoperative value, but with no requirement for dialysis.

OR

B. Acute Renal Failure Requiring Dialysis: In a patient who did not require dialysis preoperatively, worsening of renal dysfunction postoperatively requiring dialysis. Note scenario B is the most severe.

Options:
- Select "Progressive Renal Insufficiency" **OR** "Acute Renal Failure" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Progressive Renal Insufficiency:

- Acute Renal Failure Requiring Dialysis:
  - If the patient refuses a recommendation for dialysis, you would answer 'Yes' to this variable because the patient required dialysis.
  - Hemodialysis, peritoneal dialysis, hemofiltration, hemodiafiltration, or ultrafiltration all qualify
  - Placement of a dialysis catheter is indicative of the need for dialysis, if **used within 48 hours of placement**

Scenarios to clarify (Do Not Assign Variable):
-

Notes:

Variable Name: Urinary Tract Infection

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patient(s) who developed a symptomatic urinary tract infection postoperatively 30 days after the principal operative procedure.

Definition: An infection in the urinary tract (kidneys, ureters, bladder, and urethra).

Criteria: Must be noted within 30 days after the principal operative procedure **AND** patient must meet **ONE** of the following A **OR** B below:

A: **ONE** of the following six criteria:
- fever (>38°C or 100.4° F)
- urgency
- frequency
- dysuria
- suprapubic tenderness
- costovertebral angle pain or tenderness

AND

- A urine culture of > 100,000 colonies/ml urine with no more than two species of organisms

OR

B: **TWO** of the following six criteria:
- fever (>38° C or 100.4° F)
- urgency
- frequency
- dysuria
- suprapubic tenderness
- costovertebral angle pain or tenderness

AND

At least one of the following:
- Dipstick test positive for leukocyte esterase and/or nitrate
- Pyuria (>10 WBCs/mm^3 or > 3 WBC/hpf of unspun urine)
- Organisms seen on Gram stain of unspun urine
- Two urine cultures with repeated isolation of the same uropathogen with >100,000 colonies/ml urine in non-voided specimen
- Urine culture with < 100,000 colonies/ml urine of single uropathogen in patient being treated with appropriate antimicrobial therapy
- Physician's diagnosis
- Physician institutes appropriate antimicrobial therapy
- [Please make sure to refer to the additional notes below]

Options:

- Select "Urinary Tract Infection" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):

-

Scenarios to clarify (Do Not Assign Variable):

- Asymptomatic UTI which are treated or untreated
- Patients with Foley catheters who do not display signs or symptoms

Notes:

- In order to assign a postoperative UTI, signs and symptoms should be reported within 72 hours prior to a urine culture being sent or 24 hours after the culture was sent.
- In some scenarios such as TURP procedure patient may appear to meet criteria based in part on symptoms as a consequence of the surgery. In such cases the SCR may want to review the case with the Surgeon Champion or surgeon who performed the case to determine whether the occurrence should be assigned. For instance, after a TURP a patient would be expected to have dysuria and a positive dipstick but based on all available information the attending might still declare that the patient does not have a UTI.
- The CDC provides the following guidance: Laboratory cultures reported as "mixed flora" represent at least 2 species of organisms. Therefore an additional organism recovered from the same culture, would represent > 2 species of microorganisms. Such a specimen cannot be used to meet the UTI criteria.

Variable Name: **UTI – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients who enter the operating room with symptomatic UTI or preoperative evidence that is highly suggestive or suspicious of a urinary tract infection (symptomatic or asymptomatic). Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: Diagnosis of a urinary tract infection or evidence that is highly suggestive or suspicious for an infection in the urinary tract at the time of surgery (PATOS).

Criteria: The case must meet the following criteria, A **AND** B below:

    A. A Urinary Tract Infection (UTI) is assigned as a postoperative occurrence

    AND

    B. One of the following scenarios (1 or 2):

        1. Preoperative evidence of a symptomatic UTI that had not started treatment or is currently undergoing treatment

        OR

        2. Preoperative evidence was highly suggestive or suspicious of a UTI (symptomatic or asymptomatic) at the time of surgery

Options:
- Yes
- No
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Results from a sterile urine culture obtained at the start of the principal operative can be utilized for evidence

Scenarios to clarify (Do Not Assign Variable):
-

Notes:

CENTRAL NERVOUS SYSTEM OCCURRENCES

Variable Name: <mark>Stroke/Cerebral Vascular Accident (CVA)</mark>

Program Legend: E, S-R, T, MO

Intent of Variable: To identify patient(s) who developed an acute cerebral vascular accident or acute stroke after surgery affecting their physiology as described.

Definition: An interruption or severe reduction of blood supply to the brain resulting in severe dysfunction.

Criteria: A Stroke/Cerebral Vascular Accident (CVA) must be noted within 30 days after the principal operative procedure **AND** one of the following A **OR** B below:

A. Patient develops a stroke with motor, sensory, or cognitive dysfunction which persists for 24 hours or more

   OR

B. If a specific timeframe for the dysfunction is not documented in the medical record, but there is a diagnosis of a stroke, assign the occurrence, unless documentation specifically states that the motor, sensory, or cognitive dysfunction resolved within 24 hours

Options:

- Select "CVA" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):

-

Scenarios to clarify (Do Not Assign Variable):

-

Notes:

CARDIAC OCCURRENCES

Variable Name: **Intraoperative <u>or</u> Postoperative <mark>Cardiac Arrest Requiring CPR</mark>**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patient(s) who experienced a cardiac arrest or dysfunction and required the initiation of CPR.

Definition: The absence of cardiac rhythm or presence of a chaotic cardiac rhythm requiring the initiation of cardiopulmonary resuscitation.

Criteria: Cardiac Arrest Requiring CPR must be noted intraoperatively or within 30 days after the principal operative procedure **<u>AND</u>** one of the following three scenarios (A or B or C) below:

A. The absence of a cardiac rhythm or presence of chaotic cardiac rhythm requiring the initiation of chest compressions

   <u>OR</u>

B. Patients in pulseless VT or V-Fib in which defibrillation is performed with or without chest compressions

   <u>OR</u>

C. Patients with automatic implantable cardioverter defibrillator (AICD) that fires and the patient has loss of consciousness

Options:
- Select "Cardiac Arrest Requiring CPR" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- PEA (pulseless electrical activity) arrests requiring chest compressions

Scenarios to clarify (Do Not Assign Variable):
- Patients who might receive initial ACLS medications but do not proceed to the initiation of chest compressions (except for VT or V-Fib as noted above)

Notes:

Variable Name: **Intraoperative <u>or</u> Postoperative <mark>Myocardial Infarction</mark>**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patient(s) who sustain an acute myocardial infarction (intraop or postop) affecting their physiology as described.

Definition: Blockage of blood flow to the heart causing damage or death to part of the heart muscle**.**

Criteria: An acute myocardial infarction must be noted intraoperatively **<u>OR</u>** within 30 days after the principal operative procedure **<u>AND</u>** one of the following three scenarios (A or B or C) below:

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

   <u>OR</u>

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

   <u>OR</u>

 C. Physician diagnosis of myocardial infarction

Options:
- Select "Myocardial Infarction" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- NSTEMI that otherwise meets criteria above

Scenarios to clarify (Do Not Assign Variable):
- A diagnosis of MI is rendered, however, cardiology is consulted and renders an official opinion that signs and symptoms are unrelated to an MI

Notes:

OTHER OCCURRENCES

Variable Name: Transfusion Intra/Postop (RBC within the First 72 Hrs of Surgery Start Time)

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify those patients for whom it was deemed to be in the patient's best interest to transfuse blood products (specifically red blood cell & whole blood products) or reinfuse autologous red blood cell or cell-saver products, and to quantify the units utilized/initiated during the principal operative procedure and up to 72 hours postoperatively.

Definition: Transfusion of red blood cells, whole blood, autologous blood, and cell-saver products.

Criteria: Indicate the number of units of red blood cells or whole blood (autologous blood, cell-saver products) utilized/initiated from the principal operative procedure surgical start time up to and including 72 hours postoperatively.

Options:
- Select "Transfusion Intraop/Postop (72 h from surgery start time)" from the dropdown menu
- Enter the number of Units Utilized/Initiated within 72 hours from surgery start time (1-200)
- Enter date of initial transfusion (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- If the patient receives shed blood, autologous blood, cell-saver blood, other reinfusion products such as Constavac or Pleurovac, intraoperatively or postoperatively, then count this blood in terms of equivalent units (see notes below).

Scenarios to clarify (Do Not Assign Variable):
- Intraoperative blood to prime the bypass pump for CABG is not shed blood and should not be included as cell-saver blood
- Blood initiated prior to the surgical start time and continuing intraoperatively and/or postoperative would not be assigned as an intraoperative/postoperative occurrence
- Transfusions of fresh frozen plasma (FFP), platelets, or volume expanders (e.g., crystalloids or colloids)

Notes:
- For cell saver, every 500 mL's of fluid will equal 1 unit of packed cells
  - If there are less than 250 mL of cell saver, round down and report as 0 units
  - If there are 250mL, or more of cell saver, round up to 1 unit. The blood may be given for **any** reason
  - If greater than 200 units, enter 200 units
- Record the number of units given or initiated. Record the date the first transfusion was **initially started** (intraoperatively or postoperatively)

Variable Name: Vein Thrombosis Requiring Therapy

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patient(s) that developed a new blood clot or thrombus within the **venous system** postoperatively affecting their physiology and requiring treatment as described. However, since there are not always preoperative studies proving that a clot or thrombus was not present preoperatively, the technical specification of the variable requires only a "new diagnosis"- in other words *the clot or thrombus was not previously known*.

Definition: New *diagnosis of* blood clot or thrombus within the **venous system** (superficial or deep) which may be coupled with inflammation and *requires* treatment.

Criteria: Must be noted within 30 days after the principal operative procedure **AND** one of the following A or B below:

A. *New* Diagnosis of a [new] venous thrombosis (superficial or deep), confirmed by a duplex, venogram, CT scan, or any other definitive imaging modality *(including direct pathology examination such as autopsy)* **AND** the patient **must be treated** with anticoagulation therapy and/or placement of a vena cava filter or clipping of the vena cava, or the record indicates *that treatment was warranted but there was no* additional appropriate treatment option available.

   OR

B. *As per (A) above,* but the patient *or decisionmaker* has refused treatment. There must be documentation in the medical record of the [patient's] refusal of treatment.

Options:
- Select "Vein Thrombosis Requiring Therapy" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):
- Internal jugular (IJ) clots
- Cephalic Vein clots
- Portal vein clots
- Patient requires therapy, but refuses

Scenarios to clarify (Do Not Assign Variable):
- Chronic venous thrombosis present preoperatively, which are also noted postoperatively but without evidence of new progression
- If only an intravenous catheter is thrombosed and the vein is not.
- Arterial clots

Notes:

Variable Name: <mark>Sepsis</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the patient who has developed an acute infectious process postoperatively affecting their physiology as described.

Definition: Sepsis takes a variety of forms and spans from relatively mild physiologic abnormalities to septic shock
       Sepsis: Sepsis is the systemic response to infection.

       Septic Shock: Sepsis is considered severe when it is associated with organ and/or circulatory dysfunction.

Criteria: Report the **most significant** level using the criteria below: Septic shock is more severe than sepsis. Criteria must be noted within 30 days after the principal operative procedure**.** Report this variable if the patient meets SIRS criteria (A) **AND** meets the most significant level of criterion (B-Sepsis OR C-Septic Shock) below:

    A.   **Five Clinical Signs of SIRS (need two):**

        1. Temp >38 ^{o}C (100.4 ^{o}F) or < 36 ^{o}C (96.8 ^{o}F)
        2. HR >90 bpm
        3. RR >20 breaths/min or $PaCO_2$ <32 mmHg (<4.3 kPa)
        4. WBC >12,000 cell/mm^3, <4000 cells/mm^3, or >10% immature (band) forms
        5. Anion gap acidosis: this is defined by either: (check with your Lab on calculation)
            a. [Na + K] – [Cl + HCO_3 (or serum CO_2)]. If this number is greater than 16, then an anion gap acidosis is present
            b. Na – [Cl + HCO_3 (or serum CO_2)]. If this number is greater than 12, then an anion gap acidosis is present

       AND

    B.   **Sepsis: Either scenario 1, 2, or 3:**

       Scenario 1:
          One of the following:
            a. Positive blood culture
            b. Clinical documentation of purulence or positive culture from any site for which there is correlating physician documentation that the site was thought to be the **acute** cause of the septic picture
       OR

       Scenario 2:
          The patient must meet SIRS criteria within 48 hours after the Principal Operative Procedure **AND** one of the following findings during the Principal Operative Procedure:
            a. <mark>Confirmed ischemic/infarcted bowel (for instance requiring resection)</mark>
            b. Purulence in the operative site
            c. Enteric contents in the operative site
            d. Positive intraoperative culture

OR

Scenario 3:
The patient must meet SIRS criteria within 48 hours before or after a subsequent reoperation **AND** one of the following findings during a subsequent operation:
   a.   Confirmed ischemic/infarcted bowel (for instance requiring resection)
   b.   Purulence in the operative site
   c.   Enteric contents in the operative site
   d.   Positive intraoperative culture

C.   **Septic Shock:** Report this variable if the patient meets both of the followings:

   1.   Sepsis criteria (B) above

   AND

   2.   Has documented organ and/or circulatory dysfunction.
      ▪   Examples of organ dysfunction include: oliguria, acute alteration in mental status, acute respiratory distress.
      ▪   Examples of circulatory dysfunction include: hypotension, requirement of inotropic or vasopressor agents.

Options:
- Select "Sepsis" **OR** "Septic Shock" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Comments (optional)

Scenarios to clarify (Assign Variable):

Scenarios to clarify (Do Not Assign Variable):
- Patient meets SIRS criteria; however, they have only a positive culture from a chronic leg wound, which is otherwise unchanged in its chronic appearance
- Cardiogenic, neurogenic, distributive or hypovolemic etiology, in the absence of meeting above criteria
- In cases where there is a documented explanation or evidence that the criteria being reviewed for SIRS (ie HR, RR, Temp) are likely due to a cause other than an inflammatory or infectious process, SIRS should not be assigned. For instance, if the patient's heart rate and respiratory rate are elevated and the WBC, temperature, and anion gap were all normal and there is no other evidence of infection. Nursing and physician documentation state the patient is anxious and teary-eyed about their diagnosis and concern for family. As there is no evidence of an ongoing inflammatory process, it is highly unlikely that the patient's elevated heart rate and respiratory rate are due to SIRS and are more likely due to anxiety. Therefore, this case will not meet SIRS criteria.

Notes:
- If the patient meets the criteria to assign preop sepsis and postop sepsis you would assign the preop risk factor and the postop occurrence and then you would assign sepsis PATOS.
- If the patient meets the criteria to assign preop septic shock and postop septic shock you would assign the preop risk factor and the postop occurrence and then you would assign septic shock PATOS.

Variable Name: **Sepsis – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients in which preoperative/intraoperative data are highly suggestive or suspicious of sepsis being present at time of surgery. Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: Evidence is highly suggestive or suspicious of a systemic response to infection preoperatively/ intraoperatively.

Criteria: The case must meet the following criteria, A **AND** B below:

   A. Sepsis is noted as a postoperative occurrence

   AND

   B. Preoperative/intraoperative evidence was highly suggestive or suspicious of sepsis at the time of surgery.

Options:
- Yes
- No
- Comments (Optional)

Scenarios to clarify (Assign Variable):
- The preoperative sepsis variable does not need to be assigned in order to assign PATOS to a postoperative occurrence of sepsis.

Scenarios to clarify (Do Not Assign Variable):
- If the record indicates that sepsis was present at some point preoperatively but fully and definitively resolved prior to the time of surgery, then PATOS should not be chosen.

Notes:
- If postoperative "Sepsis" is assigned--only "PATOS Sepsis" can be assigned (provided that the patient meets criteria for PATOS Sepsis). Cannot assign "PATOS Septic shock" unless septic shock occurs postoperatively.
- PATOS criteria are frequently less stringent than criteria for an analogous preoperative risk factor or postoperative occurrence. This means at times PATOS can be assigned to a postoperative occurrence despite the fact that criteria for a preoperative risk factor may not be met.
- **Sepsis PATOS**: If sepsis is noted as a postoperative outcome; select YES (for PATOS) if preoperative data are highly suggestive or suspicious of Sepsis **OR** the more severe level of Septic Shock being present at the time of surgery. If the record indicated that Sepsis **OR** the more severe level of Septic Shock was present at some point preoperatively but fully and definitively resolved prior to the time of surgery, then PATOS should not be chosen.

Variable Name: **Septic Shock – PATOS**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To identify patients in which preoperative/intraoperative data are highly suggestive or suspicious of septic shock being present at time of surgery. Present at the time of surgery (PATOS) modifiers preclude the assigned postoperative event from being counted as a postoperative occurrence in modeling.

Definition: Evidence is highly suggestive or suspicious of a systemic response to infection with organ/circulatory dysfunction preoperatively/intraoperatively.

Criteria: The case must meet the following criteria, A **AND** B below:

    A. Septic Shock is noted as a postoperative occurrence

    AND

    B. Preoperative/intraoperative evidence was highly suggestive or suspicious of septic shock at the time of surgery.

Options:
- Yes
- No
- Comments (Optional)

Scenarios to clarify (Assign Variable):
- The preoperative septic shock variable does not need to be assigned in order to assign PATOS to a postoperative occurrence of septic shock.

Scenarios to clarify (Do Not Assign Variable):
- If the record indicates that septic shock was present at some point preoperatively but fully and definitively resolved prior to the time of surgery, then PATOS should not be chosen.

Notes:
- If postoperative "Septic shock" is assigned--only "PATOS septic shock" can be assigned (provided the patient meets criteria for PATOS septic shock). "PATOS sepsis" cannot assign because septic shock is the occurrence that is more severe and takes precedence over sepsis.
- PATOS criteria are frequently less stringent than criteria for an analogous preoperative risk factor or postoperative occurrence. This means at times PATOS can be assigned to a postoperative occurrence despite the fact that criteria for a preoperative risk factor may not be met.

Variable Name: **Other Postoperative Occurrence (ICD Code)**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture postoperative occurrences not previously captured on a site by site basis.

Definition: Individual sites determine the use of this field.

Options:
- Select "Other (list ICD code)" from the dropdown menu
- Enter date (mm/dd/yyyy)
- Enter ICD Code

Notes:
- *These "other postoperative occurrences" will not be risk-adjusted for the semi-annual report (SAR). If this data needs to be analyzed, a data download or case details report may be run.*

POSTOPERATIVE INFORMATION

HOSPITAL DISCHARGE/READMISSIONS/ MORTALITY/REOPERATIONS

Variable Name: <mark>Acute Hospital Discharge Date</mark>

Program Legend: E, S-R, T, MO, FL

Intent of variable: To capture the date on which the patient's level of care reflects discharge from the acute level of care whether or not the patient leaves your institution.

Definition: The date when the patient is discharged or transferred from the acute hospital setting at your institution.

Criteria: Enter the date the patient is transferred or discharged from **your** hospital's acute care setting.

Options:
- Enter Date (mm/dd/yyyy)

Scenarios to clarify (Assign Variable):
- Patient remains in institution but is transferred from acute to subacute care, assign the date of this transfer from acute care.
- Patient is transferred from the acute care setting of your institution to the acute care setting of another institution; assign the date of this transfer out of your institution as the discharge date from your hospital and enter discharge destination appropriately.

Scenarios to clarify (Do Not Assign Variable):
- The transfer from an intensive care unit to a regular acute medical/surgical floor is not a discharge from acute care.

Notes:
- If the patient remains in the acute hospital setting at 30 days, record as 'still in-hospital at 30 days'.
- If the patient dies in the acute hospital setting, record the date of death as the hospital discharge date.

Variable Name: <mark>Hospital Discharge Destination</mark>

Program Legend: E, S-R, T, MO, FL

Intent of variable: To capture information that might be utilized to assess completeness of care episode or utilization of resources.

Definition: The place where the patient was discharged following their acute care stay.

Criteria: Choose the patient's discharge destination from the following options.

Options:
- **Skilled care, not home** (e.g., transitional care unit, subacute hospital, ventilator bed, skilled nursing home)
- **Unskilled facility, not home** (e.g., nursing home or assisted facility-if not patient's home preoperatively)
- **Facility which was home** (e.g., return to a chronic care, unskilled facility, or assisted living-which was the patient's home preoperatively, prison)
- **Home**
- **Separate acute care** (e.g., transfer to another acute care facility)
- **Rehab**
- **Expired**
- **Unknown**

Scenarios to clarify (Assign Variable):
- See CMS-NSQIP Discharge Destination Crosswalk (Appendix C)

Scenarios to clarify (Do Not Assign Variable):
-

Notes:

CMS – NSQIP Discharge Destination Crosswalk

CMS (Center for Medicare & Medicaid Services)		NSQI	
#	Destination Name	#	Destination Name
01	Discharged to home care or self-care	4	Home
02	Discharged/transferred to a short term general hospital for inpatient care	5	Separate acute care
03	Discharged/transferred to skilled nursing facility (SNF) with Medicare certification in anticipation of skilled care	1	Skilled care, not home (transitional care unit, sub-acute hospital, ventilator bed, skilled nursing home)
04	Discharged/transferred to a facility that provides custodial or supportive care	2	Unskilled facility, not home (e.g. nursing home or assisted facility-if not patient's home preoperatively)
05	Discharged/transferred to a designated cancer center or children's hospital	5	Separate acute care
06	Discharged/transferred to home under care of organized home health service organization in anticipation of covered skilled care	4	Home
07	Left against medical advice or discontinued care	8	Unknown
20	Expired	7	Expired
21	Discharged/transferred to court/law enforcement	3	Facility which was home (e.g. return to chronic care, unskilled facility, or assisted living-which was the patient's home preoperatively, prison).
43	Discharged/transferred to a federal health care facility	5 / 2	If to VA hospital / If to VA nursing home
50	Hospice-home	4	Home
51	Hospice-medical facility (certified) providing hospice level of care	1	Skilled care, not home (transitional care unit, sub-acute hospital, ventilator bed, skilled nursing home)
61	Discharged/transferred to hospital-based Medicare approved swing bed	1	Skilled care, not home (transitional care unit, sub-acute hospital, ventilator bed, skilled nursing home)
62	Discharged/transferred to an inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital	6	Rehab
63	Discharged/transferred to a Medicare certified long term care hospital (LTCH)	1	Skilled care, not home (transitional care unit, sub-acute hospital, ventilator bed, skilled nursing home)
64	Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare	1	Skilled care, not home (transitional care unit, sub-acute hospital, ventilator bed, skilled nursing home)
65	Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital	5	Separate Acute care
66	Discharged/transferred to a critical access hospital (CAH)	5	Separate acute care
70	Discharged/transferred to another type of health care institution not defined elsewhere in this code list	8	Unknown

Variable Name: **Postoperative Diagnosis (ICD Code)**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture information regarding the indication for the principal operative procedure. In some cases, this information further stratifies risk.

Definition: The diagnosis code which corresponds to the patient's condition**.**

Criteria: Enter the appropriate ICD code corresponding to the condition noted as the postoperative diagnosis in the brief operative note, operative report, and/or after the return of the pathology reports.

Options:
- Enter ICD Code

Scenarios to clarify (Assign Variable):
-

Scenarios to clarify (Do Not Assign Variable):
-

Notes:
- ACS advises each SCR to discuss and develop an internal process for determining the postoperative diagnosis with their Surgeon Champion. ACS is reluctant to mandate particular internal processes for each institution on this issue, but will attempt to assist institutions once internal resources have been involved.

Variable Name: **Still in Hospital > 30 Days**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To indicate that the patient has not yet been discharged from the acute care setting at your institution within 30 days after the principal operative procedure. Postoperative day 30 represents the final day of follow-up for the patient, for any occurrence, except in-hospital death.

Definition: The patient remains in the acute care setting at your institution continuously for > 30 days after the principal operative procedure.

Criteria: Patient has a **continuous** stay in the acute care setting **at your institution** > 30 days after the principal operative procedure.

Options:
- Check box

Scenarios to clarify (Assign Variable):
-

Scenarios to clarify (Do Not Assign Variable):
- Patients discharged from the acute care setting at your institution, but remained in the hospital (rehab or hospice unit)

Notes:

Variable Name: **Death During Operation (Intraoperative Death) <u>or</u> Postoperative Death within 30 Days of Procedure**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture any death that occurs during the intraoperative period or at any point within 30 days after the principal operative procedure.

Definition: Any death, regardless of cause, noted during the intraoperative period or within 30 days after the principal operative procedure. The date the patient leaves the surgical suite is treated as POD 0. The intraoperative period is defined from the time the patient arrives in the OR (Patient In Room time) to the time the patient is transported out of the OR (Patient Out of Room time). Deaths occurring by midnight of POD 30 would be included.

Criteria: Death, regardless of cause, must be noted intraoperatively <u>**OR**</u> within 30 days after the principal operative procedure <u>**AND**</u> one of the following three scenarios (A or B or C) below:

    B. If the patient dies in the OR, regardless of cause, enter the date of death for the patient

        <u>**OR**</u>

    C. If patient enters the OR and death, regardless of cause, occurs intraoperatively, but on the following day, document the actual date the death occurred, if different from the date the patient entered the OR

        <u>**OR**</u>

    D. If the patient dies within 30 days after the principal operative procedure, regardless of cause, in or out of the hospital, enter the date of death for the patient

Options:
- Yes
- No

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: **Postoperative Death > 30 Days of Procedure if in Acute Care**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture death related to the principal operative procedure or postoperative complication(s) that occurs after POD 30 if the patient has never been discharged from the acute care setting.

Definition: Death occurring > 30 days after the principal operative procedure, as a direct result of the surgery and/or associated with postoperative complications and the patient has remained in the hospital in the acute care setting.

Criteria: Death must be noted after POD 30 **AND** the both following A **AND** B below:

    A. The patient has never been discharged from the acute care setting

        AND

    B. The death is related to the principal operative procedure or a postoperative complication

Options:
- Enter date (mm/dd/yyyy)

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:

Variable Name: **Date of Death**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture the date of death of the patient.

Definition: The date in which the patient expires.

Criteria: Enter date of death based on **ONE** of the following five scenarios (A or B or C or D or E) below:

   A. If the patient dies in the OR, enter the date of death for the patient
   B. If patient enters the OR and death occurs intraoperatively, but on the following day, document the actual date the death occurred if different from the date the patient entered the OR
   C. If the patient dies within 30 days after the principal operative procedure, regardless of cause, in or out of the hospital, enter the date of death for the patient
   D. If patient was never discharged from the acute care setting, **and** remained in the hospital >30 days, **and** the death is related to the principal operative procedure or a postoperative complication enter the date of death
   E. If date of death is not reported assign 'Unknown'

Options:
   • Enter date (mm/dd/yyyy)
   • Unknown

Scenarios to Clarify (Assign Variable):
   •

Scenarios to Clarify (Do Not Assign Variable):
   • If patient remains in hospital > 30 days, but not in acute care setting, do not record date of death in this field.

Notes:

Variable Name: <mark>Hospital Readmission</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture inpatient readmission(s) by midnight of POD 30 and distinguish between planned and unplanned readmissions at the time of the principal operative procedure; and to distinguish those that are likely related or unlikely related to adverse events following the principal operative procedure.

Definition: Patients who were discharged from their acute hospital stay for their principal operative procedure, and subsequently readmitted as an inpatient to an acute care hospital setting.

Criteria & Options: Enter each hospital inpatient readmission separately.

1. **Was there a readmission for any reason within 30 days of the principal operative procedure?**
   Report any readmission (to the same or another hospital), for any reason, within 30 days after the principal operative procedure. The readmission has to be classified as an "inpatient" stay by the readmitting hospital, or reported by the patient/family as such.
   - Answer "Yes" or "No"
     o If "Yes", enter date of readmission, if known (mm/dd/yyyy) or select 'Unknown'
     o If "Yes", enter information Source: Medical Record, Patient/Family Report, Other

2. **Was this readmission unplanned at the time of the principal operative procedure?**
   - Answer "Yes" or "No"

3. **Was this readmission likely related to the principal operative procedure?**
   - Answer: "Yes" or "No"
     - Select "Yes" if the readmission (to the same or another hospital) was for a postoperative occurrence likely related to the principal operative procedure within 30 days after the principal operative procedure. "Yes" is the default answer unless it is definitively indicated that the readmission is not related to the principal operative procedure.
       o If likely related, choose the primary suspected reason (postoperative occurrence) or enter ICD code, or if code unknown please describe the reason for the readmission. Choosing one of these occurrences does not indicate that the NSQIP criteria for the occurrence were met; it merely indicates that this diagnosis was given as a reason for readmission.
         ➢ Superficial Incisional SSI
         ➢ Deep Incisional SSI
         ➢ Organ/Space SSI
         ➢ Wound Disruption
         ➢ Pneumonia
         ➢ Intraoperative OR Postoperative Unplanned Intubation
         ➢ Pulmonary Embolism
         ➢ On Ventilator > 48 Hours
         ➢ Progressive Renal Insufficiency
         ➢ Acute Renal Failure
         ➢ Urinary Tract Infection (UTI)
         ➢ Stroke/CVA

- ➢ Intraoperative OR Postoperative Cardiac Arrest Requiring CPR
- ➢ Intraoperative OR Postoperative Myocardial Infarction
- ➢ Transfusion Intra/Postop (RBC within the First 72 Hrs of Surgery Start Time)
- ➢ Vein Thrombosis Requiring Therapy
- ➢ Sepsis
- ➢ Septic Shock
- ➢ Other: ICD Code_____

- o If the readmission is unrelated, choose the primary suspected reason (postoperative occurrence) or enter ICD code, or if code unknown please describe the reason for the readmission. Choosing one of these occurrences does not indicate that the NSQIP criteria for the occurrence were met; it merely indicates that this diagnosis was given as a reason for readmission.
  - ➢ Superficial Incisional SSI
  - ➢ Deep Incisional SSI
  - ➢ Organ/Space SSI
  - ➢ Wound Disruption
  - ➢ Pneumonia
  - ➢ Intraoperative OR Postoperative Unplanned Intubation
  - ➢ Pulmonary Embolism
  - ➢ On Ventilator > 48 Hours
  - ➢ Progressive Renal Insufficiency
  - ➢ Acute Renal Failure
  - ➢ Urinary Tract Infection (UTI)
  - ➢ Stroke/CVA
  - ➢ Intraoperative OR Postoperative Cardiac Arrest Requiring CPR
  - ➢ Intraoperative OR Postoperative Myocardial Infarction
  - ➢ Transfusion Intra/Postop (RBC within the First 72 Hrs of Surgery Start Time)
  - ➢ Vein Thrombosis Requiring Therapy
  - ➢ Sepsis
  - ➢ Septic Shock
  - ➢ Other: ICD Code_____

Scenarios to Clarify (Assign Variable):
- •

Scenarios to Clarify (Do Not Assign Variable):
- •

Notes:
- • Multiple readmissions can be entered, similar to how multiple postoperative occurrences can be entered.

Variable Name: <mark>**Unplanned Reoperation**</mark>

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture any surgical procedures that occurred (were started) prior to midnight of POD 30 and were unplanned at the time of the principal operative procedure. To further differentiate reoperations that were or were not likely related to the principal operative procedure.

Definition: A return to the OR that was not planned at the time of the principal operative procedure.

Note: In cases where institutions have obtained permission to accrue cases performed outside of a main OR, a return to OR would have to be a return to a main OR or to the same venue where the principal operative procedure was performed.

Criteria & Options:
    1. Did the patient have an <u>unplanned return</u> to the OR for a surgical procedure within the 30 day postoperative period?
- Answer "Yes" or "No"
  If "Yes" enter:
  - Surgery Date (mm/dd/yyyy) or select 'Unknown'
  - Information source (select one) – Medical Record, Patient/Family Report, or Other
  - CPT® code(s)*
    <mark>*Enter the Principal Operative Procedure into the database first, other and additional CPT® codes are optional.</mark>

  ➤ If 'Yes', was the return to the OR for a postoperative occurrence likely related to the principal operative procedure? "Yes" is the default answer unless it is definitively indicated that the unplanned return to the OR is not related to the principal operative procedure.
    - Answer "Yes" or "No"
    - If "Yes", record the ICD code; provide a diagnosis description if ICD code is not documented

    2. Did the patient have a <u>second unplanned</u> return to the OR for a surgical procedure within the 30 day postoperative period?
- Answer "Yes" or "No"
  If "Yes" enter:
  - Surgery Date (mm/dd/yyyy) or select 'Unknown'
  - Information source (select one) – Medical Record, Patient/Family Report, or Other
  - CPT® code(s)

  ➤ If 'Yes', was the return to the OR for a postoperative occurrence likely related to the principal operative procedure? "Yes" is the default answer unless it is definitively indicated that the unplanned return to the OR is not related to the principal operative procedure.
    - Answer "Yes" or "No"
    - If "Yes", record the ICD code; provide a diagnosis description if ICD code is not documented

3. Were there <u>more than two unplanned re-operations</u> for a postoperative occurrence likely related to the principal operative procedure within the 30 day postoperative period?
> •Answer: "Yes" or "No"

Scenarios to Clarify (Assign Variable):

•

Scenarios to Clarify (Do Not Assign Variable):

- If there is documentation preoperatively or intraoperatively that the patient requires a return to the OR following the principal operative procedure
- A return to the OR if:
  - An unintended principal procedure is aborted due to patient physiology and is rescheduled for the completion of the initial procedure at a later date.
  - Unanticipated findings are discovered, such as a progressed disease state, during the principal procedure requiring additional or subsequent operations.
  - An unintentional bowel perforation occurred during the principal operative procedure and intraoperatively was noted will require additional procedures or closure at a later date.
- This definition is not meant to capture patients who go back to the operating room within 30 days for a follow-up procedure based on the pathology results from the principal operative procedure or concurrent procedure. Examples of such procedures include breast biopsies which return for re-excisions and insertion of port-a-caths for chemotherapy.
- If there is a reoperations for bronchoscopy only and/or triple lumen central lines/SWANS

Notes:

FOLLOW-UP

Variable Name: **30 Day Follow-Up**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To capture mortality and morbidity data through the 30th day after the principal operative procedure. Sites must consistently complete full 30 day follow-up on a minimum of 80 % of the cases submitted to the Program. Sites with complete 30 day follow-up rates of less than 80% will not be included in the Semiannual Report.

Definition: The ACS NSQIP requires the reporting of mortality and morbidity data up to and including the 30th day after the principal operative procedure on all cases entered into the Program.

Criteria: A minimum of three (3) attempts should be made to contact the patient.

Options:
- Yes
- No
    - If no, enter the number of days from the drop down that you were able to follow this case.
    - Assign the methods which were utilized to obtain follow-up information.

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes:
- All reasonable attempts to obtain complete follow-up data should be made by the SCR and documented in this section. The SCR will incorporate some or all of the strategies for obtaining follow-up data recommended in the ACS NSQIP Operations Manual: Appendix G – Policies & Procedures.
- If a patient returns a 30-day follow-up letter and reports that they developed one of the NSQIP postoperative occurrences within 30-days of the principal operative procedure, the patient or physician should be contacted to determine if they meet the criteria of the definition to assign the postoperative occurrence.

Variable Name: **Patient Contact Management**

Program Legend: E, S-R, T, MO, FL

Intent of Variable: To assist with SCR workflow management.

Definition: This field is used to assist the SCR in managing patient follow up activities.

Criteria: Enter the method of completion for 30 day follow-up.

Options:
- Contact Date
- Contact Action
- Contact Results
- Notes

Scenarios to Clarify (Assign Variable):
-

Scenarios to Clarify (Do Not Assign Variable):
-

Notes: This field is required and will be audited during an IRR.