M·ACS

2020 Data Dictionary

Contents

Tab 1 – Identifiers

1) Center

Intent: Identify the medical center entering data into the MACS/Qualtrics workstation.

Definition: The two initial code assigned to the medical center by the MACS coordinating center.

Variable Options:

a. CO
b. OW
c. SH
d. SJ
e. SP
f. UM

Include: All

Exclude: N/A

Note:

2) Medical Record Number (MRN)

Intent: To provide a means to identify a specific patient in the MACS database.

Definition: The Medical Record Number (MRN) is a unique number assigned by the hospital that permanently identifies the patient in the database.

Variable Options: The MRN assigned by the hospital.

Include: All

Exclude: N/A

Notes:

- All cases for an individual patient will track to a single MRN.
  Ensure the MRN is entered the same way every time (including or excluding leading zero's as appropriate for the hospital).

3) Visit Number (CSN)

Intent: To provide a means to identify a specific visit (case) for internal tracking purposes.

Definition: A number assigned by the hospital for a specific visit (case).

Variable Options: Any number assigned by the hospital.

Include: All

Exclude: N/A

Notes:

4) MACS Case Number

Intent: To provide a means to identify a specific patient touch (entry) by the Acute Care Surgery/General Surgery physicians for entry into the MACS/Qualtrics database.

Definition: A unique number assigned by the abstractor at the time of entry into Qualtrics.

Variable Options: Any number

Include: All

Exclude: N/A

Notes: Should not be the medical record number or visit number.

5) SCOAP Case Number

Intent: To provide a means to identify a specific case in the SCOAP database for internal tracking purposes.

Definition: The number assigned by the SCOAP workstation for a specific case.

Variable Options: Any number assigned by the workstation.

Include: All cases entered into the SCOAP database.

Exclude: Patients not entered into the SCOAP database.

Notes: Currently, only applies to UM

Tab 2 – Demographics

6) First Name

Intent: To provide a means to identify a patient for internal tracking purposes.

Definition: First name of the patient.

Variable Options: Name

Include: All

Exclude: N/A

Notes:

7) Last Name

Intent: To provide a means to identify a patient for internal tracking purposes.

Definition: Last name of the patient.

Variable Options: Name

Include: All

Exclude: N/A

Notes: If name is hyphenated, remove the hyphen and leave a space.

8) Date of Birth (mm/dd/yyyy)

Intent: To provide the means to calculate the patient's age at the time of the admit/principle operative procedure to ensure that the patient meets program inclusion criteria (≥ 18 years). May also be used in analysis to predict risk by calculating the patient age.

Definition: The month, day and year that the patient was born.

Variable Options: Date in mm/dd/yyyy format.

Include: All

Exclude: N/A

Notes:

9) Sex

Intent: To capture the genetic sex of the patient. May also be used in analysis to predict risk.

Definition: Differentiation between males and females.

Variable Options:

a) Female
b) Male
c) Unknown

Include: All

Exclude: N/A

Notes: The genetic sex of the patient at the time of their birth is to be used to answer this question.

10) Race

Intent: To capture the race of the patient. May also be used when investigating disparities in care and/or outcomes.

Definition: "The racial categories…generally reflect a social definition of race recognized…and not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race item include racial and national origin or sociocultural groups…People who identify their origin as Hispanic, Latino, or Spanish may be of any race" (US Census Bureau). Race may be assigned per hospital internal policy or self-identified by the patient.

Variable Options:

a. White: A person having origins in any of the original peoples of Europe, North Africa or the Middle East
b. Black or African American: A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" may appear in the medical record in addition to "Black or African American"
c. 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
d. Native Hawaiian or Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

e. 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
f. Unknown

Include: All

Exclude: N/A

Notes:

- If the patient's race is documented only as Hispanic/Latino, choose "White" **and** choose "Hispanic or Latino" for ethnicity.
- If the patient's race is documented as mixed Hispanic/Latino with another race, choose whatever race is listed – for example, if "Black/Hispanic" is noted, choose "Black or African American" **and** "Hispanic or Latino" for the ethnicity.
- If the patient declined to answer, include in Unknown.

Resources: Us Office of Management and Budget Classification of Federal Data on Race and Ethnicity. US Census Bureau

11) Ethnicity

Intent: To capture the ethnicity of the patient. May also be used when investigating disparities in care and/or outcomes.

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.

Variable Options:

a. Hispanic or Latino
b. Not Hispanic or Latino
c. Unknown

Include: All

Exclude: N/A

Notes:

- "Race" is required in addition to the variable.
- If the ethnicity is unknown, select "Not Hispanic or Latino".

12) Address (1234 Main Street)

Intent: Capture the patients current address.

Definition: The patients current address (street number and street name).

Variable Options: Format example 1234 Main Street

Include: All

Exclude: N/A

Note: If no address is available please leave blank.

13) City

Intent: Capture the patients current address.

Definition: The patient's city of residence.

Variable Options: Free Text

Include: All

Exclude: N/A

Note: If no address is available please leave blank.

14) State

Intent: Capture the patients current address.

Definition: The patient's state of residence.

Variable Options: Select state from dropdown menu

Include: All

Exclude: N/A

Note: If no address is available please leave "Michigan".

15) ZIP Code

Intent: Capture the patients current address.

Definition: The patient's zip code.

Variable Options: 5-digit number, Format example 12345

Include: All

Exclude: N/A

Note: If no address is available please leave blank.

16) Phone (XXX-XXX-XXXX)

Intent: Capture the patient's phone number.

Definition: The patient's phone number.

Variable Options: Format XXX-XXX-XXXX

Include: All

Exclude: N/A

Note: If no phone number is available please leave blank.

17) Email

Intent: Capture the patient's email.

Definition: The patient's current email.

Variable Options: Free Text

Include: All

Exclude: N/A

Note: If no email is available please leave blank.

18) Insurance

Intent: To capture the insurance or payment type for the admission.

Definition: Indicate the patient's primary insurance/payer at discharge.

Variable Options:

a. Government Medicaid (straight)
b. Government Medicare (all)
c. Government Medicare & Medicaid
d. Government Other Payer (e.g. TriCare, VA Health Benefits)
e. HMO BCN Medicare Advantage (Blue Care Network (BCN)
f. HMO BCN Michigan
g. HMO Commercial (non-BCN)
h. HMO Medicaid (e.g. Blue Cross Complete of Michigan) For a list of additional Medicaid HMO plans by county go to: https://www.michigan.gov/documents/mdch/MHP_Service_Area_Listing_326102_7.pdf
i. Non-HMO BCBSM-Medicare Advantage (Blue Cross Blue Shield Michigan (BCBSM) e.g. Medicare Plus Blue PPO)
j. Non-HMO BCBS Michigan (Blue Cross Blue Shield (BCBS) Michigan PPO or EPO)
k. Non-HMO Commercial (e.g. non-Michigan BCBS PPO or EPO, other payer non-HMO, worker' comp/auto insurance)
l. Self-Pay with Insurance (patient has insurance but it is not being used for this admission)
m. Uninsured/Self-Pay without Insurance (includes Medicaid pending and international insurance)

Include: All

Exclude: N/A

Note:

Tab 3 - Arrival

19) ED Arrival Date

Intent: To capture the first date that the patient is available to be seen by a physician provider in the ED to allow the tracking of timeframes.

Definition: The date the patient first reaches a healthcare provider.

Variable Options: Date in mm/dd/yyyy format

Include: All patients seen in the ED.

Exclude: N/A

Notes:

- Use ED arrival date from the ED record. Do not use the arrival date listed on an EMS run sheet for this variable.
- If the patient is transferred from another hospital's ED, capture date the patient arrives at your ED.
- Leave blank if patient was not treated in the ED.
- Patients being admitted from OB triage or Women's triage leave the ED Arrival date and time blank.

20) ED Arrival Time (Military Time 00:00)

Intent: To capture the first time that the patient is available to be seen by a physician provider in the ED to allow the tracking of timeframes.

Definition: The time the patient first reaches a healthcare provider.

Variable Options: military time in hh:mm format

Include: All patients seen in the ED.

Exclude: N/A

Notes:

- Use ED arrival time from the ED records. Do not use the arrival time listed on an EMS run sheet for this variable.
- If the patient is transferred from another hospital's ED, capture time the patient arrives at your ED.
- Leave 00:99 if patient was not treated in the ED.
- Patients being admitted from OB triage or Women's triage leave the ED Arrival date and time blank.

21) Admit Date

Intent: To capture the date that the patient started treatment outside of an ED stay.

Definition: The date the patient was admitted or placed in observation.

Variable Options: Date in mm/dd/yyyy format

Include: N/A

Exclude: Patients treated only in the ED.

Notes:

- Leave blank if patient was managed only in the ED and did not have surgery.
- Admit date for patients directly admitted from the outside to an inpatient unit or going from the ED to a unit (inpatient/observation) will be the ADT unit admit date.
- Admit date for patients not admitted before going to the OR (e.g. ED to OR) will be the in room date from the anesthesia record.
- Patients being admitted from OB triage or Women's triage leave the ED Arrival date and time blank but complete the Admit date and time.

22) Admit Time (Military Time 00:00)

Intent: To capture the time that the patient started treatment outside of an ED stay.

Definition: The date the patient was admitted or placed in observation.

Variable Options: military time in hh:mm format

Include: N/A

Exclude: Patients treated only in the ED.

Notes:

- Leave 00:99 if patient was managed only in the ED and did not have surgery.
- Admit time for patients directly admitted from the outside to an inpatient unit or going from the ED to a unit (inpatient/observation) will be the ADT unit admit time.
- Admit time for pts going from the ED to the OR will be the in room time from the anesthesia record.

23) MACS Readmit

Intent: To capture patients who have previously been included in the MACS database for evaluation of management outcomes.

Definition: The patient has been previously entered into the MACS/Qualtrics database.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

24) Point of Entry

Intent: To capture the location of the patient prior to being admitted to your hospital if needed for case mix adjustment.

Definition: To capture the location of the patient prior to being admitted to your hospital.

Variable Options:

a. Home/Direct Admit (e.g. home, assisted living facility, group home, jail/prison).
    - Include patients who are directly admitted from a physician's office or urgent care.
b. Direct from Skilled Care (e.g. skilled nursing home, transitional care unit, sub-acute hospital, ventilator bed, long-term acute care facility)
    - Patients directly admitted from a skilled nursing facility.
c. ED
    - If the patient presents to an outside ED and then presents to your ED by private care **without** transfer paperwork/orders.
    - Patients who present from a skilled nursing facility to the ED.
d. Transfer from Outside Hospital ED
    - If the patient presents to an outside ED and then presents to your ED or hospital by private care **with** transfer paperwork/orders.
e. Transfer from Outside Hospital (e.g. inpatient at transferring hospital to inpatient at your hospital)
f. Transfer Other (e.g. psychiatric unit, hospice unit, ambulatory surgery center directly to an inpatient bed)
g. Emergency Department Only/Not Admitted
    - A patient who is never admitted and never has surgery.
h. Other (e.g. Admit via OB/women's triage, admit from inpatient rehab)

Include: All

Exclude: N/A

Notes:

25) Surgery Consult Date (mm/dd/yyyy)

Intent: To allow the hospital/service to track timeframes from visit start to the date the patient is seen by the general surgery service.

Definition: Indicate the date the first general surgeon seen the patient

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- Consult Inpatient New, Consult in ED or Admit H & P are all acceptable sources.
- The date of the first note should be used if there is more than one general surgeon who sees the patient (e.g. an ED consult and then an inpatient H & P, use the ED consult date).
- If there is a general surgery consult and a surgical critical care consult use the date the genera surgery consult.
- If the patient is a home/direct admit to the operating room **or** a consult in the operating room, put the date of surgery from the Anesthesia record.

26) Consult Surgeon

Intent: To allow the hospital/service to track each surgeon's consults/admits to allow for surgeon-specific data reporting.

Definition: Identify the name of the first general surgery physician to see the patient for consult/admit.

Variable Options: Select the appropriate surgeons' name.

Include: All

Exclude: N/A

Notes:

- Consult Inpatient New, Consult in ED or Admit H & P are all acceptable sources.
- The general surgery attending physician listed on the first note should be used if there is more than one (e.g. an ED consult and then an inpatient H & P, use the ED consult date).
- If there is a general surgery consult and a surgical critical care consult use the name of the surgeon from the general surgery consult.
- If the patient is a home/direct admit to the operating room **or** a consult in the operating room, put the primary attending general surgeon who performed the surgery from the operative note.

27) ACS Service

Intent: To allow the hospital to provide service specific data reporting when multiple general surgery teams are available.

Definition: Document the name of the general surgery service that provides the first consult/admit.

Variable Options: Select the appropriate general surgery service for your hospital.

Include: All

Exclude: N/A

Notes:

- Within an institution there may be multiple services that cover emergency general surgery/surgical critical care. In a community setting there may be multiple physician practices that share call for emergency general surgery/surgical critical care. The service or practice group assigned to each variable option will be identified by each hospital to best meet their reporting needs.

28) Type of Service

Intent: To allow the hospital to provide service specific information on the number of patients seen who are consults only and those who are admitted to the general surgery service.

Definition: Indicate if the service was seeing the patient as an outpatient, a consultant or if the patient was admitted to the general surgery service.

Variable Options:

a. Admit – primary responsibility for this patient's care lies with general surgery
b. Consult – general surgery is consulted to see the patient but the primary responsibility for the care of this patient is with another service (e.g. medicine, neurosurgery)
c. Outpatient – patients who present for outpatient surgery and are not admitted post-op

Include: All

Exclude: N/A

Notes:

- Select "Consult" for all patients that the service sees in the ED who are discharged from the ED (not admitted to the hospital).
- If SA1, SA2 or SCC is primary service then mark as "Admit".

Tab 4 – Risk Factors

29) Height (cm)

Intent: To capture the height of the patient for the purpose of risk stratification.

Definition: The patient's height as documented in the medical record prior to surgery or on admission for medically managed patients.

Variable Options: Height in centimeters (cm)

Include: All patients with a recorded height between 102-244 cm.

Exclude: patients with a recorded height outside the range above or who do not have a height in the medical record.

Note:

30) Weight (kg)

Intent: To capture the weight of the patient for risk stratification.

Definition: The patient's weight as documented in the medical record prior to surgery or on admission for medically managed patients.

Variable Options: Weight in kilograms (kg)

Include: All patients with a recorded weight between 27-635 kg.

Exclude: patients with a recorded weight outside the range above or who do not have a weight recorded in the medical record.

Note: If multiple weights are recorded use the one closest to the surgery date/time or the one closest to ED/admission for non-surgery patients.

31) Ascites

Intent: To capture patients with ascites due to liver disease or malignancy for the purpose of risk stratification.

Definition: The patient had an accumulation of fluid in the peritoneal cavity related to liver disease or malignancy noted on physical examination, paracentesis, radiology results or found during the principal operative procedure (if the patient had surgery). Ascites noted within 30

days prior to the principal operative procedure for surgery patients or within 30 days prior to admission for medically managed patients should be included.

Variable Options:

a. Yes - Ascites due to liver disease or malignant ascites due to cancer (patient should have documentation of liver disease and/or cancer in the medical record)
b. No

Include: All

Exclude: N/A

Note:

- Select “No” for “Minimal”, “trace” or “small amount” of ascites noted.
- Select “No” for ascites that is not related to liver disease or cancer.

32) CHF w/in 30 Days

Intent: To identify patient with a new diagnosis of congestive heart failure (CHF) or patients with chronic CHF who had a recent acute exacerbation for the purpose of risk stratification.

Definition: The patient has a new diagnosis of CHF or chronic CHF with a recent acute exacerbation (new signs or symptoms) within 30 days prior to surgery or 30 days prior to admit for medically managed patients. CHF should be noted in the medical record.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

33) COPD (Severe)

Intent: To identify patients with severe chronic obstructive pulmonary disease (COPD) for risk stratification.

Definition: The patient has a documented diagnosis of COPD and at least one of four indicators of severe COPD.

Variable Options:

a. Yes – Diagnosis of COPD **and** one or more of the following:
    - Functional disability from COPD (e.g. dyspnea or inability to perform ADLs)
    - Chronic bronchodilator therapy (oral or inhaled)
    - Past hospital admission (does not include ED only not admitted) for treatment of COPD
    - An FEV_1 of <75% of predicted on pulmonary function testing
b. No
    - Patients with diffuse interstitial fibrosis, sarcoidosis, cystic fibrosis or silicosis

Include: All

Exclude: N/A

Note:

- Select "No" for patients with a diagnosis of asthma, seasonal asthma or exercise-induced asthma.
- PRN use of a bronchodilator does not meet the criteria for "chronic bronchodilator therapy".

34) COVID-19

Intent: To identify patients with a known or suspected COVID-19 infection on admission for risk stratification.

Definition: Determine the likelihood that the patient had a COVID-19 infection on admission.

Variable Options:

a. Confirmed Positive – tested and confirmed positive
b. Suspected – signs and symptoms consistent with COVID-19 but not tested
c. Unlikely – no symptoms of COVID-19 and not tested
d. Confirmed Negative – tested and confirmed negative

Include: All

Exclude: N/A

Note:

35) Current Cancer/Malignancy

Intent: To identify patients with an existing malignancy for risk stratification.

Definition: The patient has a known malignancy prior to admit or is diagnosed with a malignancy during this admission.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note: If answer to the above question is "Yes", the Disseminated Cancer variable must be completed.

- Select "Yes" if the patient received treatment (e.g. chemotherapy, radiation therapy, hormone therapy, surgery) for a malignancy within one year prior to the admit date.
- Select "Yes" if the malignancy is identified during surgery (operative note or positive pathology result).
- Select "No" for patients with basal cell or superficial squamous cell skin cancer
- Select "No" for patients "in remission" or who do not have evidence of active disease.

36) Diabetes Mellitus

Intent: To identify the chronic management of a patient's diabetes prior to admission for risk stratification.

Definition: Identify the diagnosis and management of diabetes in the patient prior to admission.

Variable Options:

a. Insulin - Diagnosis of diabetes and patient requires insulin daily (with our without non-insulin agents).
b. Non-Insulin – Diagnosis of diabetes and patient uses oral/non-insulin injectable anti-diabetic agent or injectable hypoglycemic agents.
c. No (e.g. no diagnosis of diabetes, borderline/pre-diabetes, insulin resistance, gestational diabetes (only diabetes during pregnancy), patients with diet controlled of diabetes)

Include: All

Exclude: N/A

Note:

- Select “No” if a temporary sliding scale is the only use of insulin.
- If a patient prior to admission was managing their diabetes without insulin, do not select “Insulin” if they are started on IV insulin infusion or sliding scale insulin as part of preoperative management.

37) Dialysis w/in 2 Weeks

Intent: To identify for risk stratification purposes patients who have severe renal compromise requiring dialysis.

Definition: The patient has acute or chronic renal failure requiring dialysis (e.g. peritoneal, hemodialysis, hemofiltration, hemodiafiltration, ultrafiltration) in the 2 weeks prior to surgery or at any time during the admission for medically managed patients.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

- If the patient refuses needed dialysis or dialysis must be delayed until after emergent surgery, select “Yes”

38) Disseminated Cancer

Intent: To identify patients with pre-existing disseminated cancer for risk stratification.

Definition: The patient has cancer that has spread to one or more sites outside of the primary site and who has cancer known to be widespread and/or near terminal.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

- Select “Yes” for patients who have “untreatable” cancer or for patients who choose not to treat their metastatic cancer.
- For surgical patients, select “Yes” if it is determined that the patient had disseminated cancer at the time of the principle operative procedure (e.g. pathology, additional testing within 30 days post-operatively).
- Disseminated cancer could be noted as “diffuse”, “widely metastatic”, “carcinomatosis” or AJCC “Stage IV”.

39) Hypertension

Intent: To identify patient with hypertension requiring management for risk stratification purposes.

Definition: The patient has a documented diagnosis of hypertension **and** has been prescribed/taking an antihypertensive medication (e.g. ACE inhibitors, beta blockers, calcium channel blockers, diuretics).

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

- To answer “Yes” must have both a diagnosis and an antihypertensive treatment.

40) Functional Health Status

Intent: To capture the lowest functional health status (ability to perform activities of daily living (ADLs) of the patient for risk stratification.

Definition: Identify the patient’s ability to perform ADLs on admission.

Variable Options:

a. Not Independent – Requires assistance from another person.
b. Independent – Doesn’t need assistance from another person.
c. Unknown - Unable to determine the functional status of the patient.

Include: All

Exclude: N/A

Note: If the patients level of ability declines prior to surgery select the lowest functional level.

41) Personal History of DVT/PE

Intent: To identify patients with a past history of venous thromboembolism (VTE) for risk stratification purposes.

Definition: The patient has a personal history of VTE (i.e. deep vein thrombosis (DVT), pulmonary embolism (PE)).

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

- Answer “No” for patients with a history of “thrombophlebitis”
- Select “Yes” if the patient has a history of clots/thrombi in any of the following: axillary, brachial, deep femoral, femoral/“superficial femoral”, fibular, gastrocnemius, iliac, internal jugular, peroneal, popliteal, portal, radial, soleal, subclavian, tibial, ulnar or vena cava.

42) Preoperative Sepsis

Intent: To identify patients with a pre-existing sepsis for risk stratification purposes.

Definition: The patient has Sepsis or Severe Sepsis/Septic Shock meeting the criteria in the table below prior to surgery or on admission for non-surgical cases.

Sepsis	***Infection Source***: Documentation of a new confirmed or suspected infection source within 72 hours.	**And**	At least **TWO** of the following ***Systemic Signs/Symptoms***: • Heart Rate (HR) > 90 beats per minute • Respiratory Rate (RR) > 20 breaths per minute • Temperature > 38° C or < 36° C • White blood cell count > 12,000/cu mm or < 4,000/cu mm or immature (band) forms > 10% Note: A **maximum of one calendar day** allowed between new ***Infection Source*** documentation and ***Systemic Signs/Symptoms***.
Severe Sepsis/Septic Shock	Must meet the above criteria for Sepsis. Note: A **maximum of 6 hours** is allowed between ***System Signs/Symptoms*** of (Sepsis criteria above) and signs of Organ Dysfunction.	**And**	At least **ONE** of the following signs of ***Organ Dysfunction***: • Systolic Blood Pressure (SBP) < 90 mmHg • Mean Arterial Pressure (MAP) < 65 mmHg • Systolic Blood Pressure (SBP) decrease > 40 mmHg from baseline • Lactate > 2 mmol/L • INR > 1.5 or aPTT > 60 seconds • Platelet count < 100,000 µL • Bilirubin > 2mg/dL • Creatinine > 2 mg/dL • Urine output < 0.5 mL/kg/hour x 2 • Hypotension requiring vasopressor therapy to maintain or elevate MAP > 65 mmHg Note: • Organ dysfunction criteria cannot be related to a chronic condition (e.g. low urine output with chronic renal failure). • Organ dysfunction criteria must be remote from the infection source. • Only documented blood pressures are to be used regardless of vasopressor administration..

Variable Options:

a. Severe Sepsis/Septic Shock
b. Sepsis
c. No

Include: All

Exclude: N/A

Note:

- Acute pancreatitis is NOT an infection source.
- "Suspected Sepsis" is NOT a documented source of infection.
- "Suspected infection from ____" is an acceptable source of infection.
- Nursing documentation referencing an infection source or treatment of a new infection is acceptable.
- Select the highest level of sepsis that the patient meets criteria.

43) Sleep Apnea

Intent: To capture patients with suspected or documented sleep apnea for risk stratification purposes.

Definition: The patient has one of the following documented:

- A diagnosis of sleep apnea or "suspicion" of sleep apnea
- Use of a treatment at home (CPAP, BiPAP, VPAP, APAP, professionally fitted oral appliance (not over the counter), neuro - stimulation therapy).
- Documentation of at least 3 of the following "STOP-BANG" assessment criteria:
    - High blood pressure
    - BMI >35
    - Age >50 years
    - Male gender
    - Snoring
    - Tired, fatigued during the say
    - Observed not breathing while sleeping
    - Neck circumference > 40 cm (16 inches)

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

44) Steroid/Immunosuppressive Medication

Intent: To identify patients who are on long-term corticosteroids and/or immunosuppressive therapy for risk stratification purposes.

Definition: The patient regularly received corticosteroids (oral or parenteral) for a chronic condition **and/or** immunosuppressive medications for one of the following: chemotherapy, autoimmune disease, non-autoimmune inflammatory disease or to prevent organ transplant rejection within 30 days prior to surgery or within 30 days prior to admission for medically managed patients.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Note:

- Select "No" if the patient who received steroids for a duration of 10 days or less in the 30 days prior.
- Select "No" if the corticosteroid is applied topically to the skin, inhaled or taken rectally.
- Interferons are not steroid or immunosuppressive medications.

Steroid Examples	
Brand Name	Generic
Celestone	betamethasone
	betamethasone sodium phosphate
Cortone	cortisone acetate
Decadron	dexamethasone
Decadron - LA	dexamethasone acetate
Decadron Phosphate	dexamethasone sodium phosphate
Cortef	hydrocortisone, hydrocortisone cypionate
	hydrocortisone sodium phosphate
Solucortef	hydrocortisone sodium succinate
Medrol, Meprolone	methylprednisolone
Depo-Medrol	methylprednisolone acetate
Solu-Medrol	methylprednisolone sodium succinate
Delta-Cortef	prednisolone
Prelone	prednisolone sodium phosphate
	prednisolone acetate
Pediapred	prednisolone sodium
Meticorten	prednisone
Aristocort, Kenacort, Atolone	triamcinolone
Entocort	budesonide
Hydrocortone	hydrocortisone
Kenalog	triamcinolone acetonide
Aristocort	triamcinolone diacetate

Immunosuppressant Examples	
Brand Name	Generic
Humira	adalimumab
Imuran	azathioprine
Cimzia	certolizumab pegol
Neoral, Sandimmune	cyclosporine
Enbrel	etanercept
Remicade	infliximab
Rheumatrex, Trexall	methotrexate
CellCept, Myfortic	mycophenolate
Tysabri	natalizumab
Rapamune	sirolimus
Prograf	tacrolimus

45) Tobacco w/in 1 year – Cigarette

Intent: To identify patients who have recently smoked tobacco cigarettes for risk stratification purposes.

Definition: The patient smoked a tobacco containing cigarette within the 12 months prior to admission.

Variable Options:

a. Yes
b. No

Include: All

Exclude: NA

Note:

- Select “No” if smoking electronic cigarettes (no tobacco), marijuana, cigars or hookah/shisha.
- Select “No” for chew tobacco or vaping.

46) Ventilator Dependent w/in 48 Hours

Intent: To capture for risk stratification purposes patients who required ventilator support.

Definition: A patient with a tracheotomy or endotracheal tube who requires ventilator assisted respirations at any time during the 48 hours prior to the principal operative procedure if they had surgery or at any time during the admit if they were medically managed.

Variable Options:

a. Yes
b. No (e.g. no ventilator required, CPAP/BiPAP for sleep apnea or respiratory distress)

Include: All

Exclude: N/A

Note:

Tab 5 – Disease

47) PRIMARY ICD-10 Code

Intent: To identify the primary reason the patient was admitted and/or was seen by General Surgery.

Definition: The post discharge ICD-10 that best defines the General Surgery problem for which the patient was seen.

Variable Options: Enter the appropriate ICD-10 diagnosis code.

Include: All patients with an ICD-10 code available.

Exclude: Patients that a ICD-10 code cannot be identified.

Notes: Use the primary billing diagnosis code for the admission (final after discharge) if appropriate to the reason for General Surgery consult. If the primary billing code is not available or not related to General Surgery, use the billing code that best describes the reason General Surgery was caring for the patient.

Example: A patient with ruptured AAA will likely have a code for ruptured AAA as their primary admission diagnosis code. However, if General Surgery sees the patient for ischemic colitis the code recorded in MACS as the PRIMARY should be for ischemic colitis.

48) SECONDARY ICD-10 Code

Intent: To document a secondary ICD-10 code that reflects a diagnosis significant to the patient's admission/management but not related to the General Surgery problem.

Definition: A significant post discharge ICD-10 that reflects a diagnosis unrelated to the General Surgery problem.

Variable Options: Enter the appropriate ICD-10 diagnosis code.

Include: All patients with a secondary ICD-10 code available.

Exclude: Patients that a secondary ICD-10 code is not identified.

Notes:

Example: A patient with ruptured AAA will likely have a code for ruptured AAA as their primary admission diagnosis code. However, if General Surgery sees the patient for ischemic colitis the code recorded in MACS as the PRIMARY ICD-10 would be ischemic colitis and the SECONDARY ICD-10 would be ruptured AAA.

49) Organ System

Intent: To identify patients with select disease processes for in depth review.

Definition: Indicate if the patient meets MACS criteria for appendix (Acute Appendicitis), gall bladder (Acute Gall Bladder Disease), small bowel obstruction, or emergent exploratory laparotomy.

Variable Options:

a. Appendix
b. Gall Bladder
c. Small Bowel
d. Exploratory Laparotomy
e. None

Include: All

Exclude: N/A

Notes:

- Select “None” if an appendectomy was a part of a bowel resection for a non-appendicitis diagnosis and does meet criteria for “Exploratory Laparotomy”.
- Select “Appendix” if patient is having surgery for an interval appendectomy.
- If the patient has an urgent/emergent exploratory laparotomy to manage a small bowel obstruction caused by volvulus, hernia, internal hernia or mass/malignancy select “Exploratory Laparotomy”.
- If there is a large bowel obstruction only, do NOT select small bowel obstruction.
- Ileus criteria - Consider excluding the patient from SBO data capture if criteria 1-3 are present:
    1. The abdominal/pelvic CT scan does not identify a transition point.
    2. The patient resolves the ileus with no operative intervention.

3. The progress notes or consult notes suggest that ileus is the more likely diagnosis.
4. It is okay to phone or email the surgeon to ask for clarification. Please document the conversation in your records/log.

Tab 6 - Appendix

Note: *if* ***interval appendectomy*** *then skip all other appendix questions and go to "Appendectomy within 12 months" (question #61 in the data dictionary).*

50) Diagnosis CT Scan

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if a CT scan was performed as a part of initial workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All acute appendicitis patients.

Exclude: Patients treated for a diagnosis other than acute appendicitis.

Notes: May include any CT that leads to information helpful to determining management (e.g. CT from an outside hospital with an internal read).

51) CT Results

Intent: To capture the results of tests that were utilized to determine management options.

Definition: Identify the results of CT testing related to appendicitis management.

Variable Options:

a. Positive (for appendicitis)
b. Negative (for appendicitis)
c. Equivocal (does not definitively point to appendicitis)

Include: All appendicitis patients who had a diagnosis CT.

Exclude: Patients who did not have a diagnosis CT.

Notes: If not appendicitis but other CT findings (e.g. mass, carcinomatosis, cyst) that could be related to the final diagnosis, select Equivocal.

52) Diagnosis Ultrasound

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if an ultrasound was performed as a part of initial workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All acute appendicitis patients.

Exclude: Patients treated for a diagnosis other than acute appendicitis.

Notes: May include any ultrasound that leads to information helpful to determining management (e.g. ultrasound from an outside hospital with an internal read).

53) Ultrasound Results

Intent: To capture the results of tests that were utilized to determine management options.

Definition: Identify the results of ultrasound testing related to appendicitis management.

Variable Options:

a. Positive (for appendicitis)
b. Negative (for appendicitis)
c. Equivocal (does not definitively point to appendicitis)

Include: All appendicitis patients who had a diagnosis ultrasound.

Exclude: Patients who did not have a diagnosis ultrasound.

Notes:

- If ultrasound does not visualize the appendix, select Equivocal.
- If not an appendicitis but other ultrasound findings (e.g. mass, carcinomatosis, cyst) that could be related to the final diagnosis, select Equivocal.

54) Diagnosis MRI

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if an MRI was performed as a part of initial workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All acute appendicitis patients.

Exclude: Patients treated for a diagnosis other than acute appendicitis.

Notes: May include any MRI that leads to information helpful to determining management (e.g. MRI from an outside hospital with an internal read).

55) MRI Results

Intent: To capture the results of tests that were utilized to determine management options.

Definition: Identify the results of MRI testing related to appendicitis management.

Variable Options:

a. Positive (for appendicitis)
b. Negative (for appendicitis)
c. Equivocal (does not definitively point to appendicitis)

Include: All appendicitis patients who had a diagnosis MRI.

Exclude: Patients who did not have a diagnosis MRI.

Notes: If not an appendicitis but other MRI findings (e.g. mass, carcinomatosis, cyst) that could be related to the final diagnosis, select Equivocal.

56) Pathology Result

Intent: To allow the hospital/service to track negative pathology in appendectomy patients and allow for service/surgeon-specific data reporting.

Definition: Document the anatomical pathology results.

Variable Options:

a. Positive (e.g. acute appendicitis, gangrenous appendicitis, acute appendicitis and serositis, acute appendicitis limited to diverticula, perforated acute appendicitis)
b. Negative (e.g. no significant abnormality, appendix without diagnostic abnormality)
c. Equivocal (e.g. other significant findings such as carcinoma, inflammatory mass)
d. No Operation

Include: All appendectomies performed for acute appendicitis.

Exclude: Appendectomy performed for non-appendicitis purposes.

Notes: Do not complete pathology results if appendectomy was a part of bowel resection for a non-appendicitis diagnosis.

57) Appendicitis Type

Intent: To collect information that helps determine the health status of the patient prior to appendicitis management.

Definition: Identify the most appropriate health status of the patient prior to appendicitis management.

Variable Options:

a. Uncomplicated (e.g. non-perforated appendicitis)
    i. CT and/or physicians' notes indicate uncomplicated appendicitis
b. Complicated-Comorbidity (e.g. patient with a non-perforated appendicitis but who cannot be operated on due to other pre-existing conditions)
c. Complicated (e.g. perforated appendicitis, appendiceal carcinoma)

Include: All acute appendicitis patients.

Exclude: Patients treated for a diagnosis other than acute appendicitis.

Notes:

58) Medical Management

Intent: To determine volume of patients who have an acute appendicitis and are managed without surgery.

Definition: Identify all patients who receive medical management for their acute appendicitis.

Variable Options:

a. Yes

b. No

Include: All acute appendicitis patients.

Exclude: Patients treated for a diagnosis other than acute appendicitis.

Notes: For all surgical patients the answer will be No.

*If the appendicitis patient is being **treated surgically**, do not answer the antibiotic questions (#59-68 in the data dictionary). Go directly to "Appendectomy within 12 months" (question #69 in the data dictionary).*

59) IV Antibiotic #1 Class

Intent: To determine the type of IV antibiotics used in the medical management of acute appendicitis.

Definition: Identify the class of IV antibiotic administered for medical management of acute appendicitis.

Variable Options:

a. Aminoglycoside (e.g. Gentamicin, Tobramycin, Neomycin)
b. Carbapenem (e.g. Imipenem, Meropenem)
c. Cephalosporin – Generation 1 (e.g. cefazolin, cephalexin)
d. Cephalosporin – Generation 2 (e.g. cefotetan, cefoxitin, cefuroxime)
e. Cephalosporin – Generation 3 (e.g. cefixime, cefotaxime, ceftriaxone)
f. Cephalosporin – Generation 4 (e.g. cefepime)
g. Lincosamide
h. Macrolide
i. Monobactam
j. Penicillin (e.g. Zosyn, Augmentin)
k. Quinolone (e.g. ciprofloxacin, levofloxacin)
l. Sulfonamide
m. Tetracycline
n. Other (e.g. Vancomycin, Vancocin, metronidazole(Flagyl), Bactrim)

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes: If more than three classes of IV antibiotics are administered enter the three that were administered the greatest number of days.

60) Duration of IV Antibiotic #1 (calendar days)

Intent: To determine the duration of IV antibiotics used in the medical management of acute appendicitis.

Definition: Identify the number of calendar days that the patient received at least one dose of the antibiotic class # 1.

Variable Options: A whole number

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

61) IV Antibiotic #2 Class

Intent: To determine the type of IV antibiotics used in the medical management of acute appendicitis.

Definition: Identify the class of IV antibiotic administered for medical management of acute appendicitis.

Variable Options:

a. Aminoglycoside (e.g. Gentamicin, Tobramycin, Neomycin)
b. Carbapenem (e.g. Imipenem, Meropenem)
c. Cephalosporin – Generation 1 (e.g. cefazolin, cephalexin)
d. Cephalosporin – Generation 2 (e.g. cefotetan, cefoxitin, cefuroxime)
e. Cephalosporin – Generation 3 (e.g. cefixime, cefotaxime, ceftriaxone)
f. Cephalosporin – Generation 4 (e.g. cefepime)
g. Lincosamide
h. Macrolide
i. Monobactam
j. Penicillin (e.g. Zosyn, Augmentin)
k. Quinolone (e.g. ciprofloxacin, levofloxacin)
l. Sulfonamide
m. Tetracycline
n. Other (e.g. Vancomycin, Vancocin, metronidazole(Flagyl), Bactrim)

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes: If more than three classes of IV antibiotics are administered enter the three that were administered the greatest number of days.

62) Duration of IV Antibiotic #2 (calendar days)

Intent: To determine the duration of IV antibiotics used in the medical management of acute appendicitis.

Definition: Identify the number of calendar days that the patient received at least one dose of the antibiotic class # 2.

Variable Options: A whole number

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

63) IV Antibiotic #3 Class

Intent: To determine the type of IV antibiotics used in the medical management of acute appendicitis.

Definition: Identify the class of IV antibiotic administered for medical management of acute appendicitis.

Variable Options:

a. Aminoglycoside (e.g. Gentamicin, Tobramycin, Neomycin)
b. Carbapenem (e.g. Imipenem, Meropenem)
c. Cephalosporin – Generation 1 (e.g. cefazolin, cephalexin)
d. Cephalosporin – Generation 2 (e.g. cefotetan, cefoxitin, cefuroxime)
e. Cephalosporin – Generation 3 (e.g. cefixime, cefotaxime, ceftriaxone)
f. Cephalosporin – Generation 4 (e.g. cefepime)
g. Lincosamide
h. Macrolide
i. Monobactam
j. Penicillin (e.g. Zosyn, Augmentin)
k. Quinolone (e.g. ciprofloxacin, levofloxacin)
l. Sulfonamide
m. Tetracycline

n. Other (e.g. Vancomycin, Vancocin, metronidazole(Flagyl), Bactrim)

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes: If more than three classes of IV antibiotics are administered enter the three that were administered the greatest number of days.

64) Duration of IV Antibiotic #3 (calendar days)

Intent: To determine the duration of IV antibiotics used in the medical management of acute appendicitis.

Definition: Identify the number of calendar days that the patient received at least one dose of the antibiotic class # 3.

Variable Options: A whole number

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

65) Duration of Home Antibiotic (calendar days)

Intent: To determine the duration of antibiotics prescribed at discharge for patients who had a medical managed acute appendicitis.

Definition: Identify the number of calendar days that the patient was prescribed antibiotics for use after discharge.

Variable Options: A whole number

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- Possible sources include but are not limited to: progress note, discharge record or orders.
- If there are different durations for home antibiotics, enter the longer duration.

66) Home Oral Antibiotic #1 Class

Intent: To determine the type of oral antibiotics prescribed at discharge for patients who had a medical managed acute appendicitis.

Definition: Identify the class of oral antibiotic prescribed at discharge for the patient who had a medical managed acute appendicitis.

Variable Options:

a. Aminoglycoside (e.g. Gentamicin, Tobramycin, Neomycin)
b. Carbapenem (e.g. Imipenem, Meropenem)
c. Cephalosporin – Generation 1 (e.g. cefazolin, cephalexin)
d. Cephalosporin – Generation 2 (e.g. cefotetan, cefoxitin, cefuroxime)
e. Cephalosporin – Generation 3 (e.g. cefixime, cefotaxime, ceftriaxone)
f. Cephalosporin – Generation 4 (e.g. cefepime)
g. Lincosamide
h. Macrolide
i. Monobactam
j. Penicillin (e.g. Zosyn, Augmentin))
k. Quinolone (e.g. ciprofloxacin, levofloxacin)
l. Sulfonamide
m. Tetracycline
n. Other (e.g. Vancomycin, Vancocin, metronidazole(Flagyl), Bactrim)

Include: All medically managed appendicitis patients who were prescribed an oral antibiotic at discharge.

Exclude: N/A

Notes: If there are more than 2 oral antibiotics prescribed at discharge, enter the 2 with the longest duration.

67) Home Oral Antibiotic #2 Class

Intent: To determine the type of oral antibiotics prescribed at discharge for patients who had a medical managed acute appendicitis.

Definition: Identify the class of oral antibiotic prescribed at discharge for the patient who had a medical managed acute appendicitis.

Variable Options:

a. Aminoglycoside (e.g. Gentamicin, Tobramycin, Neomycin)
b. Carbapenem (e.g. Imipenem, Meropenem)
c. Cephalosporin – Generation 1 (e.g. cefazolin, cephalexin)
d. Cephalosporin – Generation 2 (e.g. cefotetan, cefoxitin, cefuroxime)
e. Cephalosporin – Generation 3 (e.g. cefixime, cefotaxime, ceftriaxone)
f. Cephalosporin – Generation 4 (e.g. cefepime)
g. Lincosamide
h. Macrolide
i. Monobactam
j. Penicillin (e.g. Zosyn, Augmentin))
k. Quinolone (e.g. ciprofloxacin, levofloxacin)
l. Sulfonamide
m. Tetracycline
n. Other (e.g. Vancomycin, Vancocin, metronidazole(Flagyl), Bactrim)

Include: All medically managed appendicitis patients who were prescribed an oral antibiotic at discharge.

Exclude: N/A

Notes: If there are more than 2 oral antibiotics prescribed at discharge, enter the 2 with the longest duration.

68) Home IV Antibiotic Class

Intent: To determine the type of IV antibiotics prescribed at discharge for patients who had a medical managed acute appendicitis.

Definition: Identify the class of IV antibiotic prescribed at discharge for the patient who had a medical managed acute appendicitis.

Variable Options:

a. Aminoglycoside (e.g. Gentamicin, Tobramycin, Neomycin)
b. Carbapenem (e.g. Imipenem, Meropenem)
c. Cephalosporin – Generation 1 (e.g. cefazolin, cephalexin)
d. Cephalosporin – Generation 2 (e.g. cefotetan, cefoxitin, cefuroxime)
e. Cephalosporin – Generation 3 (e.g. cefixime, cefotaxime, ceftriaxone)
f. Cephalosporin – Generation 4 (e.g. cefepime)
g. Lincosamide

h. Macrolide
i. Monobactam
j. Penicillin (e.g. Zosyn, Augmentin))
k. Quinolone (e.g. ciprofloxacin, levofloxacin)
l. Sulfonamide
m. Tetracycline
n. Other (e.g. Vancomycin, Vancocin, metronidazole(Flagyl), Bactrim)

Include: All medically managed appendicitis patients who were prescribed an IV antibiotic at discharge.

Exclude: N/A

Notes: If there are more than 1 IV antibiotics prescribed at discharge, enter the 1 with the longest duration.

69) Appendectomy Within 12 Months

Intent: To determine the prevalence of patients who have an appendectomy within 12 months of being medically managed for an acute appendicitis.

Definition: Identify if the patient had a medically managed appendicitis in the 12 months prior to the appendectomy.

Variable Options:

a. Emergent (Recurrence) – a patient who was medically managed for an acute appendicitis in the prior 12 months and presents to the hospital with symptoms of acute appendicitis leading to appendectomy.
b. Interval – a patient who returns within 12 months for an elective appendectomy as follow-up to the prior medically managed acute appendicitis.
c. No – no medically managed acute appendicitis within 12 months prior to the appendectomy.

Include: All acute appendicitis patients.

Exclude: N/A

Note: If the patient receives medical management for acute appendicitis during this admission, leave as “No”.

Tab 7 - Gall Bladder

70) Diagnosis Ultrasound

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if an ultrasound was performed as a part of initial gall bladder workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gall bladder patients.

Exclude: N/A

Notes:

71) Diagnosis CT Scan

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if a CT scan was performed as a part of initial gall bladder workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gall bladder patients.

Exclude: N/A

Notes:

72) Diagnosis HIDA

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if a HIDA was performed as a part of initial gall bladder workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gall bladder patients.

Exclude: N/A

Notes:

73) Diagnosis EUS

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if an EUS was performed as a part of initial gall bladder workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gall bladder patients.

Exclude: N/A

Notes:

74) Diagnosis ERCP

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if an ERCP was performed as a part of initial gall bladder workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gall bladder patients.

Exclude: N/A

Notes:

75) Diagnosis MRI/MRCP

Intent: To capture the types of testing that were utilized to determine management options.

Definition: Identify if a MRI was performed as a part of initial gall bladder workup (e.g. before surgery if surgical management or near the time of admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gall bladder patients.

Exclude: N/A

Notes:

Note: *For* ***medically managed gall bladder patients****, go to # 83 and leave number 76 through 82 as "No".*

76) Intra-Op Cholangiogram

Intent: To capture the testing utilized with surgical management of gall bladder disease.

Definition: Identify if an intra-operative cholangiogram was performed with surgical management of gall bladder disease.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

- If patient was medically managed, leave as "No".

77) Secondary Ultrasound

Intent: To capture the types of testing that were utilized for further evaluation post-surgery.

Definition: Identify if a post-operative ultrasound was performed.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

78) Secondary CT Scan

Intent: To capture the types of testing that were utilized for further evaluation post-surgery.

Definition: Identify if a post-operative CT scan was performed.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

79) Secondary HIDA

Intent: To capture the types of testing that were utilized for further evaluation post-surgery.

Definition: Identify if a post-operative HIDA was performed.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

80) Secondary EUS

Intent: To capture the types of testing that were utilized for further evaluation post-surgery.

Definition: Identify if a post-operative EUS was performed.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

81) Secondary ERCP

Intent: To capture the types of testing that were utilized for further evaluation post-surgery.

Definition: Identify if a post-operative ERCP was performed.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

82) Secondary MRI/MRCP

Intent: To capture the types of testing that were utilized for further evaluation post-surgery.

Definition: Identify if a post-operative MRI was performed.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

83) Non-Operative Management

Intent: To determine volume of patients who have gall bladder disease that are managed without surgery.

Definition: Identify all patients who receive medical management for their gall bladder disease.

Variable Options:

a. Yes
b. No

Include: All patients with gall bladder disease.

Exclude: Patients treated for a diagnosis other than gall bladder.

Notes:

Tab 8 - Small Bowel Obstruction

84) Prior Small Bowel Obstruction

Intent: To track the incidence of recurring small bowel obstruction.

Definition: Identify if the patient has had any prior admission(s)/observation with management of a small bowel obstruction.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

- Do not include the current admission/observation.
- If a patient was managed at an outside hospital for small bowel obstruction and then is transferred to your hospital for continued management of the same small bowel obstruction, do not include this as a prior small bowel obstruction.
- Include admission/observation for small bowel obstruction at outside hospital(s).
- Include self-reported (patient/family/guardian/care giver) incidence of small bowel obstruction managed at outside hospitals.

85) Number Prior Admits for Small Bowel Obstruction

Intent: To track the incidence of recurring small bowel obstruction.

Definition: Identify the number of times the patient has had a prior admission(s)/observation with management of a small bowel obstruction.

Variable Options:

a. 1
b. 2
c. 3-10
d. > 10
e. Multiple (exact number unknown)
f. Unknown

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

- Do not include the current admission/observation
- If a patient was managed at an outside hospital for small bowel obstruction and then is transferred to your hospital for continued management of the same small bowel obstruction, do not include this as a prior small bowel obstruction.
- Include admission/observation for small bowel obstruction at outside hospital(s).
- Include self-reported (patient/family/guardian/care giver) incidence of small bowel obstruction managed at outside hospitals.

86) Prior Abdominal Procedures

Intent: To identify factors related to the development of small bowel obstruction.

Definition: Determine if patient has had prior abdominal surgery.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

- Answer "Yes" for surgery with entry into the peritoneum including ventral/incisional hernia repair.
- It is acceptable to use descriptions of prior incisions in the physician's physical exam notes to answer questions 79, 80 and 81.

87) Prior Open Laparotomy

Intent: To identify factors related to the development of small bowel obstruction.

Definition: Determine if patient has had prior open abdominal surgery.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes: It is acceptable to use descriptions of prior incisions in the physician's physical exam notes to answer questions 79, 80 and 81.

88) Prior Laparoscopy

Intent: To identify factors related to the development of small bowel obstruction.

Definition: Determine if patient has had prior laparoscopic abdominal surgery.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes: It is acceptable to use descriptions of prior incisions in the physician's physical exam notes to answer questions 79, 80 and 81.

89) Prior Mesh

Intent: To identify factors related to the development of small bowel obstruction.

Definition: Determine if patient has had prior abdominal surgery with mesh placement.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

90) Prior Radiation

Intent: To identify factors related to the development of small bowel obstruction.

Definition: Determine if the patient has had prior radiation treatment to intra-abdominal structures.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

91) Metastatic Malignancy

Intent: To identify factors related to the development of small bowel obstruction.

Definition: Determine if the patient has metastatic malignancy in intra-abdominal structures.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

92) CT Scan

Intent: To capture testing utilized to determine management.

Definition: Identify if a CT was performed as part of small bowel obstruction evaluation.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

93) CT Scan Date (mm/dd/yyyy)

Intent: To identify the date the CT procedure was performed.

Definition: Indicate the date the CT procedure occurred.

Variable Options: Date in mm/dd/yyyy format.

Include: Patients with a small bowel obstruction who have a CT.

Exclude: Small bowel obstruction who did not have a CT.

Notes:

94) CT Scan Time (Military Time 00:00)

Intent: To identify the time the CT procedure was performed.

Definition: Indicate the time the CT procedure occurred.

Variable Options: military time in hh:mm format.

Include: Patients with a small bowel obstruction who have a CT.

Exclude: Small bowel obstruction who did not have a CT.

Notes:

95) Enteral Contrast

Intent: To identify if enteral contrast was given prior to the CT.

Definition: Indicate if enteral contrast was given prior to the CT.

Variable Options:

a. Yes
b. No

Include: Patients with a small bowel obstruction who have a CT.

Exclude: Small bowel obstruction patient that did not have a CT.

Notes: Examples of enteral contrast include but are not limited to Gastrografin, Hypaque, VoLumen, READI-CAT.

96) CT Findings

Intent: To capture the results of testing utilized to determine management of small bowel obstruction.

Definition: Determine if the following variable options were identified in the CT report or the surgeons note(s) regarding CT results.

Variable Options:

a. Free Fluid
    i. Yes
    ii. No
b. Fecalization
    i. Yes
    ii. No
c. Pneumatosis
    i. Yes
    ii. No
d. Swirl Sign (e.g. swirl, twisted)
    i. Yes
    ii. No
e. Ischemic/Dead Bowel
    i. Yes
    ii. No
f. Obstruction
    i. Yes
    ii. No
g. Other (e.g. volvulus of the small bowel)
    i. Yes
    ii. No

Include: Patients with a small bowel obstruction who have a CT.

Exclude: Small bowel obstruction who did not have a CT.

Notes:

- If the answer to Obstruction is “Yes” answer the “Obstruction Related to Adhesions” question below.
- If the answer to Other is “Yes” answer the “Other CT Findings” question below.

97) Obstruction Related to Adhesions

Intent: To track patients with a small bowel obstruction that is likely related to adhesions.

Definition: Determine if the small bowel obstruction is likely related to adhesions.

Variable Options:

a. Yes
b. No

Include: Patients with a small bowel obstruction.

Exclude: N/A

Notes: If adhesions or “possible adhesion related” is not documented in the medical record (CT results, physician notes) select “No”

98) Other CT Findings

Intent: To identify other CT findings that may relate to the patient’s symptoms and/or management for potential future inclusion in data collection.

Definition: Determine if there are other CT findings related to the patient’s symptoms and/or management.

Variable Options: Free Text

Include: Patients with a small bowel obstruction who have a CT result of “Other”.

Exclude: N/A

Notes:

- Include potential causes of the patient’s symptoms such as volvulus, mass, hernia etc.

99) Gastrografin Challenge

Intent: To capture the results of testing utilized to determine management of small bowel obstruction.

Definition: Identify if a Gastrografin challenge was performed as part of small bowel obstruction evaluation.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes: A small bowel follow-through (Gastrografin administration followed by fluoroscopy) should be captured as a Gastrografin challenge.

100) Gastrografin Challenge Date (mm/dd/yyyy)

Intent: Identify the date that results were available from a Gastrografin challenge performed with the purpose of deciding ongoing surgical or non-surgical management.

Definition: Date of Gastrografin x-ray to confirm.

Variable Options: Date in mm/dd/yyyy format

Include: Patients who had a Gastrografin challenge.

Exclude: N/A

Notes:

101) Gastrografin Challenge Time (Military Time 00:00)

Intent: Identify the time that results were available from a Gastrografin challenge performed with the purpose of deciding ongoing surgical or non-surgical management.

Definition: Time of Gastrografin x-ray to confirm.

Variable Options: military time in hh:mm format

Include: Patients who had a Gastrografin challenge.

Exclude: N/A

Notes:

102) Gastrografin Result

Intent: To capture the results of testing utilized to determine management of small bowel obstruction.

Definition: Determine the final results of the Gastrografin challenge.

Variable Options:

a. Positive Colon – contrast found in the colon (part or all)
b. Negative Colon – contrast not found in the colon
c. Other

Include: Patients who had a Gastrografin challenge.

Exclude: N/A

Notes: Gastrografin Result should be marked “Positive Colon” if the contrast makes it to the colon, even if the x-ray had to be repeated multiple times.

103) Operation

Intent: To track select procedures performed during surgical management for small bowel obstruction.

Definition: Identify which of the variable options below occurred during surgery for small bowel obstruction.

Variable Options:

a. Lysis of Adhesions
    i. Yes
    ii. No
b. Bypass
    i. Yes
    ii. No
c. Resection with Anastomosis
    i. Yes
    ii. No
d. Resection with Stoma
    i. Yes
    ii. No
e. Anti-Adhesion Barrier Use
    i. Yes
    ii. No
f. Hernia Repair Primary
    i. Yes
    ii. No
g. Hernia Repair Mesh
    i. Yes
    ii. No

Include: Patients who had surgical management of small bowel obstruction.

Exclude: N/A

Notes: Leave all fields checked “No” if surgery was not performed (medical management).

104) Operative Findings

Intent: To track select surgeon findings during surgical management of small bowel obstruction.

Definition: Identify which of the variable options below were found during surgery for small bowel obstruction.

Variable Options:

a. Negative Exploration
    i. Yes
    ii. No
b. Single Band Adhesion
    i. Yes
    ii. No
c. Multiple Band/Dense Adhesion
    i. Yes
    ii. No
d. Obstruction
    i. Yes
    ii. No
e. Ischemic/Dead Bowel
    i. Yes
    ii. No
f. Inadvertent Enterotomy
    i. Yes
    ii. No
g. Other
    i. Yes
    ii. No

Include: Patients who had surgical management of small bowel obstruction.

Exclude: N/A

Notes: Leave all fields checked “No” if surgery was not performed (medical management).

105) Other Operative Findings

Intent: To identify other operative findings that may relate to the patient’s symptoms and/or surgical management for potential future inclusion in data collection.

Definition: Determine if there are other operative findings related to the patient’s symptoms and/or surgical management.

Variable Options: Free text

Include: Patients with a small bowel obstruction who have an operative finding of “Other”.

Exclude: N/A

Notes:

Tab 9 – Exploratory Laparotomy

106) Abdominal X-Ray

Intent: To capture testing utilized to determine management.

Definition: Identify if an abdominal X-ray was performed as part of evaluation of the patient prior to receiving an emergent exploratory laparotomy.

Variable Options:

a. Yes
b. No

Include: All patients who had an emergent exploratory laparotomy.

Exclude: Patients without an emergent exploratory laparotomy.

Note:

107) Abdominal X-Ray Date (mm/dd/yyyy)

Intent: To identify the date the abdominal X-ray was performed.

Definition: Indicate the date the abdominal X-ray occurred.

Variable Options: Date in mm/dd/yyyy format.

Include: Patients who have an abdominal X-ray prior to an emergent exploratory laparotomy.

Exclude: Emergent exploratory laparotomy patients who did not have an abdominal X-ray.

Notes:

108) Abdominal X-Ray Time (Military Time 00:00)

Intent: To identify the time the abdominal X-ray was performed.

Definition: Indicate the time the abdominal X-ray occurred.

Variable Options: military time in hh:mm format

Include: Patients who have an abdominal X-ray prior to an emergent exploratory laparotomy.

Exclude: Emergent exploratory laparotomy patients who did not have an abdominal X-ray.

Notes:

109) CT Scan

Intent: To capture testing utilized to determine management.

Definition: Identify if a CT was performed as part of evaluation in patients who receive an emergent exploratory laparotomy.

Variable Options:

a. Yes
b. No

Include: All patients who had an emergent exploratory laparotomy.

Exclude: Patients without an emergent exploratory laparotomy.

Note:

110) CT Scan Date (mm/dd/yyyy)

Intent: To identify the date the CT was performed.

Definition: Indicate the date the CT occurred.

Variable Options: Date in mm/dd/yyyy format.

Include: Patients who have a CT prior to an emergent exploratory laparotomy.

Exclude: Emergent exploratory laparotomy patients who did not have a CT.

Notes:

111) CT Scan Time (Military Time 00:00)

Intent: Intent: To identify the time the CT was performed.

Definition: Indicate the time the CT occurred.

Variable Options: military time in hh:mm format

Include: Patients who have a CT prior to an emergent exploratory laparotomy.

Exclude: Emergent exploratory laparotomy patients who did not have a CT.

Notes:

112) CT Findings

Intent: To capture the results of testing utilized to determine management in patients who received an emergent exploratory laparotomy.

Definition: Determine if the following variable options were identified in the CT report or the surgeons note(s) regarding CT results.

Variable Options:

a. Free Air
    i. Yes
    ii. No
b. Free Fluid
    i. Yes
    ii. No
c. Fecalization
    i. Yes
    ii. No
d. Pneumatosis
    i. Yes
    ii. No
e. Swirl Sign (e.g. swirl, twisted)
    i. Yes
    ii. No
f. Ischemic/Dead Bowel
    i. Yes
    ii. No
g. Obstruction
    i. Yes
    ii. No

h. Other
    i. Yes
    ii. No

Include: Patients who have a CT prior to an emergent exploratory laparotomy.

Exclude: Emergent exploratory laparotomy patients who did not have a CT.

Note:

113) Other CT Findings

Intent: To identify other CT findings that may relate to the patient's symptoms and/or management for potential future inclusion in data collection.

Definition: Determine if there are other CT findings related to the patient's symptoms and/or management.

Variable Options: Free Text

Include: Patients with an emergent exploratory laparotomy who have a CT result of "Other".

Exclude: N/A

Notes:

- Include potential causes of the patient's symptoms such as volvulus, mass, hernia etc.

NOTE: All NEWS 2 Score, SIRS Criteria and ABG variables:

- should be obtained within the 6 hours prior to the exploratory laparotomy incision time.
- If there are no values available for a variable within the 6 hours prior to laparotomy incision time, leave the item default.
- If there are multiple results within the 6 hours prior, select the set closest to the exploratory laparotomy incision time.

114) NEWS 2 Score – Respiratory Rate (bpm)

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

Definition: The patients respiratory rate in breaths per minute.

Variable Options:

a. <=8
b. 9-11
c. 12-20
d. 21-24
e. >=25

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

115) NEWS 2 Score – Hypercapnic Respiratory Failure

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

Definition: The patient has a $PaCO_2$ >45 mmHg within 6 hours prior to emergent exploratory laparotomy.

Variable Options:

a. Yes
b. No

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

116) NEWS 2 Score – SpO2

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient prior to emergent exploratory laparotomy.

Definition: The patient's oxygen saturation.

Variable Options:

a. <=91%

b. 92-93%
c. 94-95%
d. >=96%

Include: Patients who have an emergent exploratory laparotomy but no hypercapnic respiratory failure.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

117) NEWS 2 Score – SpO2 in Respiratory Failure

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient prior to emergent exploratory laparotomy.

Definition: The patient's oxygen saturation including use of supplemental oxygen.

Variable Options:

a. <=83%
b. 84-85%
c. 86-87%
d. 88-92%, >=93% on room air
e. 93-94% on Supplemental O2
f. 95-96% on Supplemental O2
g. >=97% on Supplemental O2

Include: Patients who have an emergent exploratory laparotomy and hypercapnic respiratory failure.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

118) NEWS 2 Score – Supplemental O2 or Room Air

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient prior to emergent exploratory laparotomy.

Definition: The patient is on room air or supplemental O2 within 6 hours prior to emergent exploratory laparotomy.

Variable Options:

a. Supplemental O2
b. Room Air

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

119) NEWS 2 Score – Temperature

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient prior to emergent exploratory laparotomy.

Definition: The patient's temperature within 6 hours prior to emergent exploratory laparotomy.

Variable Options:

a. <=35.0 C
b. 35.1-36.0 C
c. 36.1-38.0 C
d. 38.1-39.0 C
e. >=39.1 C

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

120) NEWS 2 Score – Systolic Blood Pressure (mmHg)

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

Definition: The patient's systolic blood pressure within 6 hours prior to emergent exploratory laparotomy.

Variable Options:

a. <= 90
b. 91-100
c. 101-110

d. 111-219
e. >=220

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

121) NEWS 2 Score – Pulse (bpm)

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

Definition: The patient's pulse within 1 hour prior to emergent exploratory laparotomy.

Variable Options:

a. <=40
b. 41-50
c. 51-90
d. 91-110
e. 111-130
f. >=131

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

122) NEWS 2 Score – Consciousness

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

Definition: The patient's level of consciousness.

Variable Options:

a. Altered Consciousness
    - Confusion – New (presumed new) or worsening confusion, disorientation (includes new reduction in Glasgow Coma Scale or delirium) or altered mentation.

- Voice – patient who is not fully awake, response in some way when you talk to them
- Pain – patient who is not alert and not responding to voice, makes a response to painful stimuli.
- Unresponsive (no eye, voice or motor response to voice or pain stimulation)

b. Alert – a fully awake patient with spontaneous eye opening, responding to voice and will have motor function.

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

123) SIRS Criteria – WBC > 12,000/mm, <4,000/mm, or > 10% bands

Intent: To use the SIRS criteria to determine the degree of illness of a patient within 6 hours prior to emergent exploratory laparotomy.

Definition: The patients WBC was >12,000/mm, <4,000/mm, or > 10% bands.

Variable Options:

a. Yes
b. No

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

124) Blood Gas Type

Intent: To identify the type of blood gas values being entered in the question below.

Definition: The type of blood gas values being entered in the question below.

Variable Options:

a. Arterial
b. Venous

Include: All patients who have an emergent exploratory laparotomy and a blood gas within the appropriate time frame.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note: If the patient has both arterial and venous gases during the appropriate time frame, please select “Arterial”.

125) Blood Gas Values

Intent: To determine the degree of illness of a patient prior to emergent exploratory laparotomy.

Definition: The patient’s blood gas values within 6 hours prior to emergent exploratory laparotomy.

Variable Options:

a. pH
b. pCO2
c. pO2
d. HCO3
e. O2Hb
f. Lactate

Include: All patients who have an emergent exploratory laparotomy and have a blood gas obtained within 6 hours of surgery.

Exclude: Patients who do not have an emergent exploratory laparotomy and/or do not have a blood gas.

Note: If the patient has both arterial and venous gases during the appropriate time frame, please enter the values for the arterial blood gas.

126) Sepsis Antibiotic Date (mm/dd/yyyy)

Intent: To identify the date that antibiotics were initiated for sepsis management.

Definition: The date the patient received the first dose of IV antibiotics.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

127) Sepsis Antibiotic Time (Military Time 00:00)

Intent: To identify the time that antibiotics were initiated for sepsis management.

Definition: The time the patient received the first dose of IV antibiotics.

Variable Options: military time in hh:mm format

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

128) Goal Directed Fluid Therapy

Intent: To identify the monitoring modality used to guide goal directed fluid therapy.

Definition: The patient had which of the following types of monitoring during their preoperative and/or intraoperative period.

Variable Options:

a. Esophageal Doppler Monitor
    i. Yes
    ii. No
b. Flo-Trac
    i. Yes
    ii. No
c. Serial ABG/Lactate
    i. Yes
    ii. No

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note:

129) Total Ventilator Calendar Days

Intent: To determine the duration of days the patient remained on a ventilator following the exploratory laparotomy for length of stay/complication purposes.

Definition: Identify the number of calendar days that the patient received ventilator assisted breaths during any portion of the day following exploratory laparotomy.

Variable Options: A whole number

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Notes:

130) ICU Admission Date (mm/dd/yyyy)

Intent: To track the date that the patient was first admitted to the ICU.

Definition: The date the patient was first admitted to the ICU.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note: If the patient has multiple ICU admits, select the date closest to the exploratory laparotomy.

131) ICU Admission Time (Military Time 00:00)

Intent: To track the time that the patient was first admitted to the ICU.

Definition: Definition: The time the patient was first admitted to the ICU.

Variable Options: military time in hh:mm format

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note: If the patient has multiple ICU admits, select the time closest to the exploratory laparotomy.

132) ICU Discharge Date (mm/dd/yyyy)

Intent: To track the date that the patient was discharged out of the ICU.

Definition: The date the patient was discharged out of the ICU.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note: If the patient has multiple ICU admits, select the date of discharge associated with the admit closest to the exploratory laparotomy.

133) ICU Discharge Time (Military Time 00:00)

Intent: To track the time that the patient was discharged out of the ICU.

Definition: The time the patient was discharged out of the ICU.

Variable Options: military time in hh:mm format

Include: All patients who have an emergent exploratory laparotomy.

Exclude: Patients who do not have an emergent exploratory laparotomy.

Note: If the patient has multiple ICU admits, select the time of discharge associated with the admit closest to the exploratory laparotomy.

Tab 10 – Interventional Radiology

134) Interventional Radiology

Intent: To evaluate the use of select interventional radiology procedures in general surgery and surgical critical care patients.

Definition: Identify if the patient had any of the IR procedures listed in the Variable Options for question 38 below.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

135) IR Procedure

Intent: To evaluate the use of select interventional radiology procedures in general surgery and surgical critical care patients.

Definition: Identify the IR procedure performed.

Variable Options:

a. Aspiration
b. Angiogram
c. Biopsy
d. Cholecystostomy tube
e. Drain
f. Embolization – with Angiogram
g. IVC Filter
h. Paracentesis
i. Percutaneous Transhepatic Cholangiogram (PTC) tube
j. Thoracentesis
k. Transjugular Intrahepatic Portosystemic Shunt (TIPS)

Include: All patients who had an IR procedure listed in the Variable Options above.

Exclude: N/A

Notes: If more than one IR procedure from the above list was performed, select the first one performed that relates to the reason for the general surgery or surgical critical care consult.

136) IR Procedure Date (mm/dd/yyyy)

Intent: To identify the date the IR procedure was performed.

Definition: Indicate the date the IR procedure occurred.

Variable Options: Date in mm/dd/yyyy format.

Include: All patients who have a IR procedure.

Exclude: N/A

Notes: Use the exam end date if available.

137) IR Procedure Time (Military Time 00:00)

Intent: To identify the time the IR procedure was performed.

Definition: Indicate the time the IR procedure occurred.

Variable Options: military time in hh:mm format.

Include: All patients who have a IR procedure.

Exclude: N/A

Notes:

- Multiple times are often listed on Radiology reports and notes for the same procedure. Use the exam end time if available.

Tab 11 – Operation

138) Operation

Intent: To identify patients who have surgery as part of management.

Definition: Indicate if the patient had surgery in the operating room.

Variable Options:

a. Yes
b. No

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Select “No” for surgery procedures performed in a critical care unit.

Tab 12 – Operation 1

139) Operation Incision Date 1 (mm/dd/yyyy)

Intent: To identify the date the surgical procedure was performed.

Definition: Indicate the date the surgical incision occurred.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

140) Operation Incision Time 1 (Military Time 00:00)

Intent: To identify the time the surgical procedure was performed.

Definition: Indicate the time of the surgical incision occurred.

Variable Options: military time in hh:mm format

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

141) Operation Dressing Date 1 (mm/dd/yyyy)

Intent: To identify the date the surgical procedure ended.

Definition: Indicate the date the surgical dressing was completed.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

142) Operation Dressing Time 1 (Military Time 00:00)

Intent: To identify the time the surgical procedure ended.

Definition: Indicate the time of the surgical dressing was completed.

Variable Options: military time in hh:mm format

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

143) Operative Surgeon 1

Intent: To identify the primary attending general surgeon for the operative procedure.

Definition: Indicate the name of the primary attending general surgeon for the procedure.

Variable Options: Select the appropriate surgeons' name

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes: If more than one attending general surgeon is listed on the operative note without indicating the primary surgeon, use the surgeon who billed for the primary procedure as the primary surgeon.

144) Operative Surgeon 1 Other (Last name, First name)

Intent: To identify the primary attending general surgeon for the operative procedure if the surgeons name is not available on the drop down list above.

Definition: Indicate the name of the primary attending general surgeon for the procedure if not available in the drop down list above.

Variable Options: Last name, First name

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes: If more than one attending general surgeon is listed on the operative note without indicating the primary surgeon, use the surgeon who billed for the primary procedure as the primary surgeon.

145) ASA Score

Intent: To track the American Society of Anesthesiologists (ASA) Physical Status Classification System score.

Definition: Indicate the ASA score as it appears on the Anesthesia record.

Variable Options:

a. 1
b. 2
c. 3
d. 4
e. 5
f. 6

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

146) Operative Type 1

Intent: To identify the potential for pre-operative preparation of the patient.

Definition: Indicate how the patient presented for surgery.

Variable Options:

a. Emergent – Surgeon/Anesthesia documents the case as emergent or the patient has an emergent medical condition that requires immediate (usually within 12 hours) medical attention to prevent loss of life/limb/organ function.
b. Urgent– Patient presents to the hospital and then the decision to take the patient to surgery occurs. The patient requires the intervention prior to discharge.
c. Elective – Surgery is scheduled in advance with an outpatient interval between the decision to operate and the actual operation.

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes:

147) Conversion

Intent: To track the use of minimally invasive surgery and cases where a minimally invasive option had to be aborted during the procedure.

Definition: The approach used by the surgeon to perform the principle procedure.

Variable Options:

a. Open – One or more incisions made to expose the underlying tissue/cavity and provide direct access for completion of the procedure.
b. Laparoscopic – Procedure done through several small incisions and performed through the vision of the laparoscope.
c. Laparoscopic to Open – A procedure that is started laparoscopic but due to operative findings (e.g. preexisting condition, iatrogenic injury, safety) must be converted to an open procedure.

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes:

148) AAST Grade

Intent: To capture the additional measure of anatomical severity of disease that has an impact on patient outcome.

Definition: Indicate the AAST grade for appendectomy and cholecystectomy patients.

Variable Options:

a. 1
b. 2
c. 3
d. 4
e. 5
f. NA

Include: Patients with an Appendectomy or Cholecystectomy CPT code.

Exclude: Patients having an interval appendectomy.

Notes:

- See hyperlink above for definitions of grades.
- Only complete for appendix and gall bladder removal.

Resource: The American Association for The Surgery of Trauma (AAST). Data Dictionaries for AAST Grading System for EGS Conditions, Emergency General Surgery Anatomic Severity Tables. https://www.aast.org/emergency-general-surgery-anatomic-grading-scales

149) Procedure CPT Code 1

Intent: To identify the principal (primary) surgical procedure performed by general surgery.

Definition: The CPT for the principal operative procedure (see notes below).

Variable Options: The Current Procedural Terminology (CPT)

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes:

- The principal operative procedure is usually the one that is related to the disease or diagnosis that led to the surgery and/or the more acute indication for the surgery as described in the operative report.
- For patients with bowel left in discontinuity at the end of the first surgery, note the actual CPT code in Qualtrics.

150) Cholecystectomy Technique

Intent: To capture the complexity of the cholecystectomy being performed.

Definition: Indicate the cholecystectomy technique used during surgery.

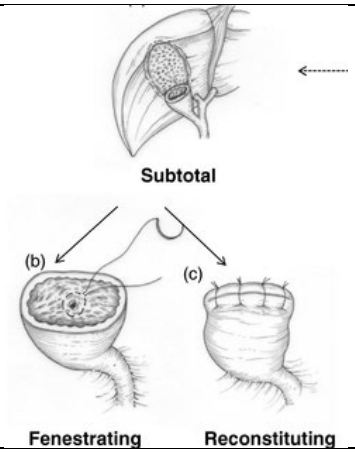
Variable Options:

a. Total Excision
b. Sub-Total Excision w/Fenestration (gallbladder is opened and then the cystic duct is potentially closed from the inside)
c. Sub-Total Excision w/Reconstitution (the walls of the gallbladder remnant are sutured or stapled together to close the remnant).
d. Sub-Total Excision Other/Not Specified

Include: Patients with a Cholecystectomy CPT code.

Exclude: Patients who do not have a cholecystectomy.

Notes:



Wakabayashi, G., Iwashita, Y. et al. Tokyo Guidelines 2018: surgical management of acute cholecystitis: safe steps in laparoscopic cholecystectomy for acute cholecystitis (with videos). J. Hepatobiliary Pancreatic Sciences (2018) 25:73-86. https://onlinelibrary.wiley.com/doi/full/10.1002/jhbp.517

151) Additional Operations

Intent: To capture information about the number and types of surgical procedures performed over the course of the patient's General Surgical management.

Definition: The patient returned to the OR after the principal operative procedure **and/or** the patient had multiple procedures (multiple CPTs) during the same surgery case.

Variable Options:

a. Yes
b. No

Include: All patients who had surgery.

Exclude: Patients who did not have surgery.

Note:

Example: Multiple CPT in one surgery - A patient went to surgery for diverticulitis with perforation. The principal operative procedure was a colectomy (CPT 44140) and mobilization of the splenic flexure (CPT 44139). To record the second CPT, answer "Yes" to additional operation and complete "Operation 2" with the same date, time, surgeon and operation type as Operation 1 but with the second CPT.

Tab 13 – Operation 2-8

152) Operation Incision Date 2-8 (mm/dd/yyyy)

Intent: To identify the date the surgical procedure was performed.

Definition: Indicate the date the surgical incision occurred.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

153) Operation Incision Time 2-8 (Military Time 00:00)

Intent: To identify the time the surgical procedure was performed.

Definition: Indicate the time of the surgical incision occurred.

Variable Options: military time in hh:mm format

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who have surgical procedures in areas other than the operating room.

Notes: Exclude surgery procedures performed in a critical care unit.

154) Operative Surgeon 2-8

Intent: To identify the primary attending general surgeon for the operative procedure.

Definition: Indicate the name of the primary attending general surgeon for the procedure.

Variable Options: Select the appropriate surgeons' name

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes: If more than one attending general surgeon is listed on the operative note without indicating the primary surgeon, use the surgeon who billed for the primary procedure as the primary surgeon.

155) Operative Surgeon 2-8 Other (Last name, First name)

Intent: To identify the primary attending general surgeon for the operative procedure if the surgeons name is not listed above.

Definition: Indicate the name of the primary attending general surgeon for the procedure if not included in the list above.

Variable Options: Last name, First name

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes: If more than one attending general surgeon is listed on the operative note without indicating the primary surgeon, use the surgeon who billed for the primary procedure as the primary surgeon.

156) Operative Type 2-8

Intent: To identify the potential for pre-operative preparation of the patient.

Definition: Indicate how the patient presented for surgery.

Variable Options:

a. Emergent – Surgeon/Anesthesia documents the case as emergent OR the patient has an emergent medical condition that requires immediate (usually within 12 hours) medical attention to prevent loss of life/limb/organ function.
b. Urgent– Patient presents to the hospital and then the decision to take the patient to surgery occurs. The patient requires the intervention prior to discharge.
c. Elective – Surgery is scheduled in advance with an outpatient interval between the decision to operate and the actual operation.

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes:

157) Procedure CPT Code 2-8

Intent: To identify the principal (primary) surgical procedure performed by general surgery.

Definition: The CPT for the principal operative procedure (see notes below).

Variable Options: The Current Procedural Terminology (CPT)

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes:

- The principal operative procedure is usually the one that is related to the disease or diagnosis that led to the surgery and/or the more acute indication for the surgery as described in the operative report.

Tab 14 - Intraoperative

158) Bowel Anastomosis Technique

Intent: To track the type of bowel anastomosis performed during the surgery for comparison of complication rates.

Definition: What type of anastomosis technique was documented for this patient.

Variable Options:

a. Stapled with an EEA (or circular) stapler (end-to-end)
b. Stapled with an EEA (or circular) stapler (side-to-end)
c. Stapled with an EEA (or circular) stapler (with pouch or coloplasty created)
d. Stapled with a GIA stapler (side-to-side) – "functional end to end"
e. Hand-sutured through the abdomen
f. Hand-sutured through the anus
g. No anastomosis was performed

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who do not have a surgical procedure.

Note:

- Select "No anastomosis was performed" for abdominoperineal resection (APR) or Hartmann's procedure.
- This variable is relevant to cases where the patient has an ileostomy or colostomy if they also had an anastomosis performed (e.g. anastomosis down-stream from the ostomy).
- If more than one anastomosis is performed base the answer on the more distal anastomosis.
- If more than one anastomosis is performed due to multiple returns to surgery, select the type for the first anastomosis.

159) Ostomy Performed

Intent: To track the type of ostomy performed during the surgery for comparison of complication rates.

Definition: Documentation of an ileostomy or colostomy being performed during this admission.

Variable Options:

a. Ileostomy
b. Colostomy
c. No

Include: All patients who have a surgical procedure in the operating room.

Exclude: Patients who do not have a surgical procedure.

Note: Select "No" if the patient has an existing ostomy that is not altered or revised during this admission.

160) Associated Hernia Requiring Repair

Intent: To track hernia repairs that occur as the primary or secondary procedure during surgery.

Definition: Identify patients who have a hernia repair during their surgery.

Variable Options:

a. Yes
b. No

Include: All patients who have a surgical procedure in the operating room.

Exclude: N/A

Notes:

- Answer "Yes" for all cases with a hernia repair including both primary surgical procedure (e.g. inguinal hernia repair only) or secondary procedure (e.g. duodenal ulcer repair is primary procedure but the patient also had an incisional hernia that was repaired).
- For internal hernia (e.g. mesenteric) answer "No".

Tab 15 – Hernia Repair

161) Previous Hernia Repair

Intent: To capture instances where the patient has a history of prior hernia repair to assess complexity of the current repair and complications.

Definition: The patient had a prior hernia repair surgery involving the ventral or abdominal region.

Variable Options:

a. Yes
b. No

Include: All patients who have a hernia repair.

Exclude: Patients who did not have a hernia repair.

Note:

162) Hernia Type

Intent: To track the type of hernias being repaired.

Definition: Identify the type of hernia that is being repaired.

Variable Options:

a. Femoral
b. Inguinal
c. Umbilical
d. Ventral/Incisional
e. Other

Include: All patients who have a hernia repair.

Exclude: N/A

Notes:

163) Hernia Location

Intent: To track the location of abdominal wall (i.e. ventral/incisional, umbilical) hernias being repaired.

Definition: Identify the location of the abdominal wall hernia based on the surgeon's documentation.

Variable Options:

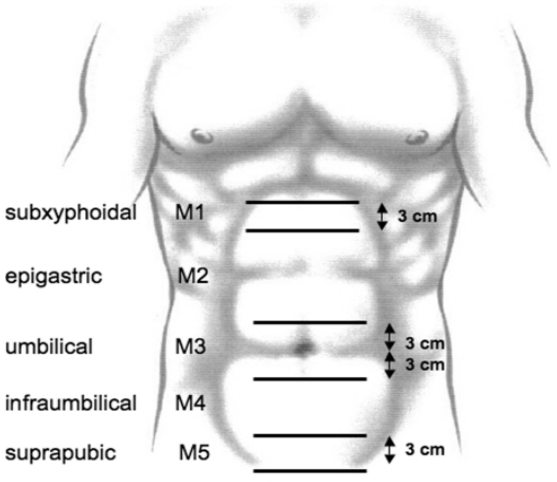
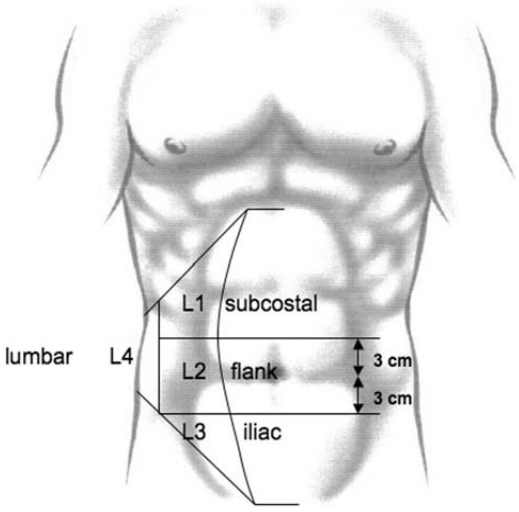
a. Epigastric (M2) – Include Subxiphoid (M1) in Epigastric
b. Umbilical (M3)
c. Infraumbilical (M4)
d. Suprapubic (M5)
e. No Midline Component – Include subcostal (L1), flank (L2), iliac (L3) and lumbar (L4).

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Notes:

- The surgeon may describe the region (e.g. "Epigastric") or may provide the EHS/AHS classification zone (e.g. "M2").
- L4 region (lumbar) will only be captured if it is an incisional hernia.
- CPT 49540 (Repair lumbar hernia) is excluded.
- To assist with identification of location see table below.

Midline (Options 1 thru 4)	No Midline (Option 5)
	
Muysoms, F., Miserez, M. et al. Classification of primary and incisional abdominal wall hernias. Hernia (2009) 13: 407-414. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719726/	

164) Hernia Length (cm)

Intent: To track the size of the hernia defect to better understand the complexity of the repair.

Definition: To report the length (most cranial to most caudal) of the hernia defect in centimeters (cm). This measurement is based on the largest distance between the vertical margins of the hernia defect.

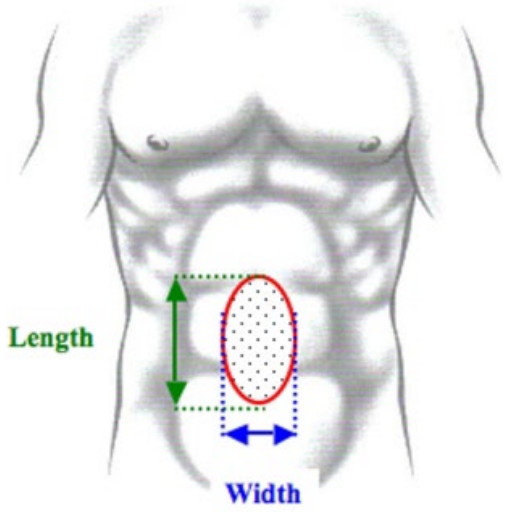
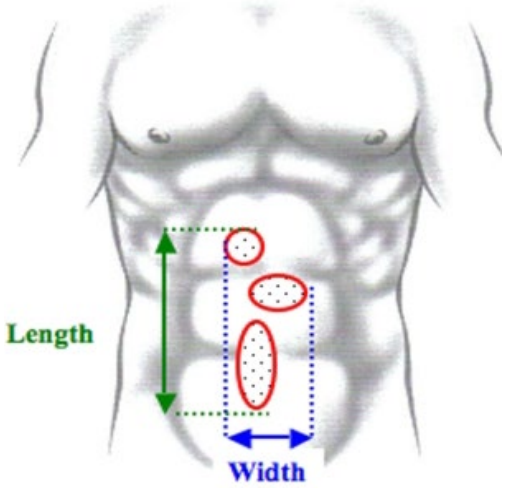
Variable Options: Any number from 0-100 in cm. Can include one digit beyond the decimal point (e.g. 5.3).

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Notes:

- If the actual hernia size is not available, leave as 0.
- Fill in both the width and length with the same number if only one number is given for the size.
- If there are multiple hernia defects, the total length for all hernias should be used. See table below for examples. Exception: for multiple incisional hernias, report only the largest single vertical dimension.

Single Hernia Measurement	Multiple Hernia Measurement
	
Muysoms, F., Miserez, M. et al. Classification of primary and incisional abdominal wall hernias. Hernia (2009) 13: 407-414. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719726/	

165) Hernia Width (cm)

Intent: To track the size of the hernia defect to better understand the complexity of the repair.

Definition: To report the width (side to side) of the hernia defect in centimeters (cm). This measurement is based on the largest distance between the lateral margins of the hernia defect.

Variable Options: Any number from 0-100 in cm. Can include one digit beyond the decimal point (e.g. 5.3).

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Notes:

- If the actual hernia size is not available, leave as 0.
- Fill in both the width and length with the same number if only one number is given for the size.
- If there are multiple hernia defects, the total width for all hernias (outer-most lateral margins) should be used. See table above for examples. **Exception to this note:** for multiple incisional hernias, report only the largest single width dimension.

166) Mesh Location

Intent: To track mesh use in hernia repair to better understand the complexity of the repair.

Definition: Identify the location of mesh placement.

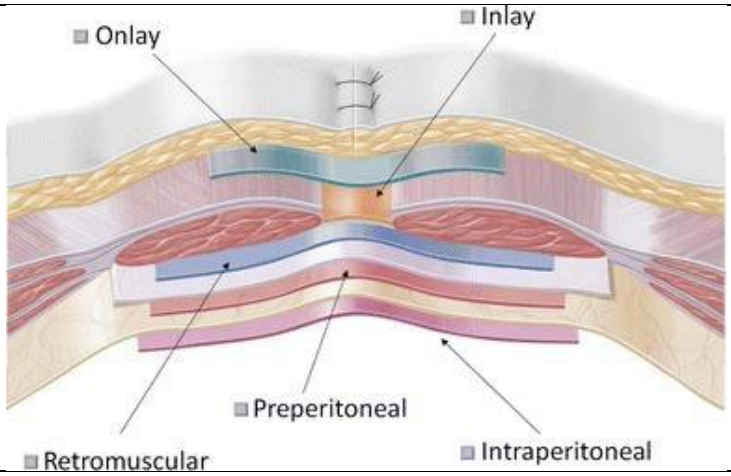
Variable Options:

a. Onlay – The mesh is above the abdominal wall muscles/fascia and behind the subcutaneous fat.
b. Inlay – The mesh is between the edges of the fascia or in the hernia defect and fixated to the margins of the defect.
c. Sublay – The mesh is positioned below the rectus (abdominal wall) muscle.
d. Inguinal/Femoral (Mesh) – Mesh was used during the inguinal or femoral hernia repair.
e. Primary (No Mesh)

Include: All patients who have a hernia repair.

Exclude: Patients who did not have a hernia repair.

Notes: See figure below for mesh locations.



Muysoms, F., Campanelli, G. et al. EuraHS: the development of an international online platform for registration and outcome measurement of ventral abdominal wall hernia repair. Hernia (2012) 16: 239-250. https://link.springer.com/article/10.1007/s10029-012-0912-7

Tab 16 – Hernia Mesh

167) Sublay Position

Intent: To track mesh use in hernia repair to better understand the complexity of the repair.

Definition: Identify the sublay mesh placement.

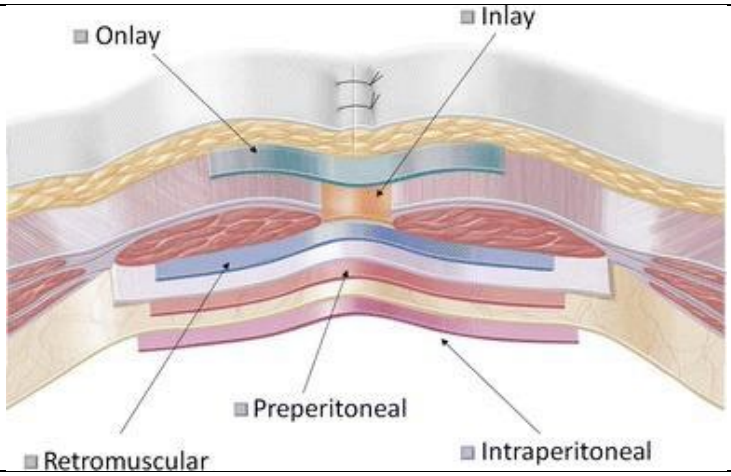
Variable Options:

a. Retrorectus or Retromuscular
    i. Midline hernias – behind the rectus abdominis muscle and in from of the posterior rectus fascia
    ii. No midline hernias – between the lateral abdominal wall muscles
b. Preperitoneal – above the peritoneum and behind the abdominal wall muscles (posterior rectus sheath muscle)
c. Intraperitoneal/Underlay – underneath the parietal peritoneum behind all layers of the abdominal wall

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Note: See figure below for mesh locations.



Muysoms, F., Campanelli, G. et al. EuraHS: the development of an international online platform for registration and outcome measurement of ventral abdominal wall hernia repair. Hernia (2012) 16: 239-250. https://link.springer.com/article/10.1007/s10029-012-0912-7

168) Mesh Length (cm)

Intent: To identify the size of the mesh used for hernia repair.

Definition: The length of mesh used in centimeters (cm). If more than one piece of mesh is used report only the length of the largest piece placed.

Variable Options: Any number from 0-100 in cm. Can include one digit beyond the decimal point (e.g. 5.3).

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Note:

- If the actual mesh size is not available, leave as 0.
- If the mesh is “trimmed” or cut to fit, use the cut size. If no “trimmed” measurement is provided, report the measurement noted on the mesh packaging.
- Leave as “0” if patient did not have a ventral/incisional or umbilical hernia repair.

169) Mesh Width (cm)

Intent: To identify the size of the mesh used for hernia repair.

Definition: The width of mesh used in centimeters (cm). If more than one piece of mesh is used report only the width of the largest piece placed.

Variable Options: Any number from 0-100 in cm. Can include one digit beyond the decimal point (e.g. 5.3).

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Note:

- If the actual mesh size is not available, leave as 0.
- If the mesh is "trimmed" or cut to fit, use the cut size. If no "trimmed" measurement is provided, report the measurement noted on the mesh packaging.
- Leave as "0" if patient did not have a ventral/incisional or umbilical hernia repair.

170) Mesh Type

Intent: To track mesh use in hernia repair.

Definition: Identify the mesh product(s) used in the hernia repair. To facilitate identification of the mesh type, use the Hernia Resource table in Appendix A.

Variable Options:

a. Synthetic Non-Absorbable (e.g. Bard Soft Mesh, Composix E/X, Composix L/P, Mersilene, Prolene, Ventralex)
    i. Yes
    ii. No
b. Synthetic Absorbable (e.g. Vicryl, Bio A, Dexon, Parietex Composite, Parietene, Physiomesh)
    i. Yes
    ii. No
c. Biosynthetic (e.g. Phasix, Proceed, Sepramesh)
    i. Yes
    ii. No
d. Biological (e.g. Strattice, Alloderm, FlexHD)
    i. Yes
    ii. No
e. Other – Prior to typing in name of the mesh, please review the Hernia Resource table (Appendix A) to ensure the product is not included in options a through d above.
    i. Yes

ii. No

Include: All patients who have a hernia repair with mesh.

Exclude: Patients who did not have mesh placement during hernia repair.

Notes:

- More than one type of mesh can be used during a hernia repair.

171) Brand of Mesh Used

Intent: To track mesh use in hernia repair.

Definition: Identify the brand of mesh product(s) used in the hernia repair.

Variable Options:

a. Bard
   i. Yes
   ii. No
b. Medtronic/Covidien
   i. Yes
   ii. No
c. Ethicon
   i. Yes
   ii. No
d. Gore
   i. Yes
   ii. No
e. Atrium
   i. Yes
   ii. No
f. Other
   i. Yes
   ii. No

Include: All patients who have a hernia repair with mesh.

Exclude: Patients who did not have mesh placement during hernia repair.

Notes:

- More than one brand of mesh can be used during a hernia repair.

172) Mesh Fixation

Intent: To identify the mesh fixation use during hernia repair.

Definition: The method used to secure the mesh during hernia repair.

Variable Options:

a. Suture
    i. Yes
    ii. No
b. Adhesive (e.g. Baxter Tisseel or Tissucol, Ethicon Evicel, CryoLife BioGlue, fibrin glue, Vivostat)
    i. Yes
    ii. No
c. Absorbable Tacks (Bard – OptiFix, SorbaFix, PermaSorb; Covidien – AbsorbaTack, ReliaTack Absorbable; Other – Ethicon SecureStrap; THD iMeshTacker)
    i. Yes
    ii. No
d. Non-Absorbable Tacks (Bard – CapSure, PermaFix; Covidien – Endo Hernia Stapler, ProTack, Reliatack Permanent, Stat Tack, Tacker)
    i. Yes
    ii. No
e. Self-Gripping/Self-Fixating (Covidien – ProGrip; Cousin Biotech – Adhesix)
    i. Yes
    ii. No
f. Other
    i. Yes
    ii. No

Include: All patients who have a hernia repair with mesh.

Exclude: Patients who did not have mesh placement during hernia repair.

Notes:

- More than one method to fixate the mesh can be used during a hernia repair.

173) Myofascial Release

Intent: To track the use of myofascial release during hernia repair.

Definition: A myofascial release (component separation) was performed during this hernia repair. Myofascial release is CPT 15734.

Variable Options:

a. Yes
b. No

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Note: For these cases, the "Procedure CPT Code 1" on the Operation 1 tab will be the hernia repair CPT. Answer "Yes" to the "Additional Operations" variable and complete "Operation 2" with the same date, time, surgeon and operation type as Operation 1 but with the myofascial release CPT as "Procedure CPT Code 2".

174) Type of Myofascial Release

Intent: To track the use of myofascial release during hernia repair.

Definition: The physician documented what type of myofascial release during hernia repair.

Variable Options:

a. Posterior Component – Exposure and division of the transversus abdominis fascia/muscle allowing placement of a mesh (sublay) in the preperitoneal /retrorectus/ retromuscular space. May also be documented as a transversus abdominis release (TAR).
b. Anterior Component – Surgeon creates a skin flap/exposure of external oblique muscle/aponeurosis by incising lateral to rectus (over external oblique in order to mobilize the muscle. Mesh placement can be onlay, inlay or underlay.

Include: All patients who have a ventral/incisional or umbilical hernia repair.

Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Note:

Tab 17 - Occurrences

NOTE: For all variables in this tab (except the Anastomotic Leak Intervention), leave blank unless there is an occurrence. Note the date of first occurrence if there are multiple.

NOTE: If the patient had one or more readmissions within 30 days of the index surgery, capture any NEW occurrence following index hospital discharge ONLY within the corresponding readmission.

For example, a patient has surgery and then is readmitted twice within 30 days, once with an anastomotic leak and once with a DVT requiring therapy. You will need to enter 3 separate cases in Qualtrics, one for the index procedure, readmit with leak complication recorded in occurrences, and readmit with DVT complication recorded in occurrences. In this example the patient would have 2 readmits, 1 DVT, and 1 anastomotic leak.

175) RBC Transfusions w/in 72 Hours Postoperatively (# Units Transfused)

Intent: To track the prevalence of post-operative patients who require red blood cells (RBC) transfusion.

Definition: The number of units of packed or whole red blood cells transfused within the 72 hours after the surgery out of room time.

Variable Options: Any number between 0 and 200 units

Include: All surgical patients.

Exclude: Patients who did not have surgery.

Note:

- Fresh Frozen Plasma (FFP), Cell Saver, platelets or other blood products which are not RBCs should not be included.
- Milliliters to Units calculation – mL administered/350 = # of units

176) Anastomotic Leak Date (mm/dd/yyyy)

Intent: To track the prevalence of post-operative patients who develop an anastomotic leak.

Definition: The first date an anastomotic leak was documented within 30 days of the operative procedure that created the anastomosis.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

177) Anastomotic Leak Intervention

Intent: To identify the type of management utilized to treat the anastomotic leak.

Definition: The management utilized to treat the first anastomotic leak.

Variable Options:

a. Reoperation
b. Antibiotics Only (no surgery and no percutaneous drainage)
c. None

Include: All

Exclude: N/A

Note: If percutaneous drainage by Interventional Radiology was utilized to manage the anastomotic leak, complete the Interventional Radiology tab.

178) Cardiac Arrest Requiring CPR Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who have a cardiac arrest requiring CPR.

Definition: The first date the patient has a cardiac arrest requiring CPR (e.g. chest compressions, defibrillation, cardiac massage and/or artificial ventilation) within 30 days after the principal operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note: Do not complete this variable for a patient with an automatic implantable cardioverter defibrillator (AICD) that "fires" but the patient had no loss of consciousness.

179) C-Difficile Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop Clostridium difficile (C-diff/C-difficile) infections.

Definition: The first date the patient has a laboratory detected C-difficile toxin in the stool within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

- Do not complete this variable if the patient has a positive C-difficile result that is < 72 hours after admission (present on admission).
- A positive stool culture, amplification, PCR assay or cell cytotoxicity test could be used to meet criteria for this variable.

180) Common Bile Duct Injury Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who have a common bile duct injury following cholecystectomy.

Definition: The first date the patient has a documented common bile duct injury identified within 30 days after the cholecystectomy.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have a cholecystectomy.

Exclude: Patients who do not have a cholecystectomy.

Note:

181) Cystic Duct Leak Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a cystic duct leak following cholecystectomy.

Definition: The first date the patient has a documented cystic duct leak identified within 30 days after the cholecystectomy.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have a cholecystectomy.

Exclude: Patients who do not have a cholecystectomy.

Note:

182) COVID-19 Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop new signs/symptoms of COVID-19 and a positive test.

Definition: The date that the patient developed new signs/symptoms of COVID-19 and a positive test during the inpatient stay.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

183) DVT Requiring Therapy Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a deep vein thrombosis (DVT) requiring therapy.

Definition: The first date the patient has both a test confirmed DVT and a treatment in place (e.g. anticoagulation therapy, vena cava filter or clipping of the vena cava) within 30 days following the principal operative procedure or within 30 days of discharge if medically managed.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

- Deep veins include: axillary, brachial, deep femoral, femoral/ "superficial femoral", fibular, gastrocnemius, iliac, internal jugular, peroneal, popliteal, portal, radial, soleal, subclavian, tibial, ulnar or vena cava.
- Clots that occur in the basilica, cephalic, hepatic, renal, mesenteric vein, greater saphenous or arteries should **not** be included.
- If DVT is test confirmed and patient refused therapy, enter the first date the patient refused therapy.
- Enter the appropriate date if there is a clot **in the vain** at the site of an internal jugular(IJ) line or PICC line.
- Examples of test to confirm include duplex/Doppler/ultrasound, venogram, or CT scan.
- Do not enter a date if the patient had a DVT on admission or developed it prior to surgery.

184) Enterocutaneous Fistula Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a new enterocutaneous fistula.

Definition: The first date that a new enterocutaneous fistula was documented within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note: Do not enter a date if the enterocutaneous fistula was present on admission.

185) Ileus Requiring NG Tube or NPO Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop an ileus requiring NG tube placement and/or NPO (nothing by mouth) for management.

Definition: The first date of documented ileus or suspected ileus **and** management (i.e. NG tube and/or NPO) within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note: Do not enter a date for patients with a history of motility disorders of the stomach or intestine (e.g. dysmotility, gastroparesis).

186) Infected Pancreas Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop an infected pancreas.

Definition: The first date the patient has a documented infected pancreas during the within 30 days following admission.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

187) Myocardial Infarction Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop an acute myocardial infarction(MI/AMI).

Definition: The first date the patient has documentation of at least **one** sign/symptom of myocardial ischemia **and** at least **one** cardiac biomarker result indicative of MI within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients. See "Notes" for examples of signs/symptoms and biomarkers for MI.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- Enter the date of death if the patient had symptoms associated with myocardial ischemia but suffered a cardiac arrest prior to testing.
- Point of Care Testing values are acceptable.

Examples of Signs and Symptoms of Myocardial Ischemia

- Symptoms - Angina, chest pain/pressure, neck or jaw pain, shoulder or arm pain, dyspnea, nausea/vomiting and clammy skin
- New or presumed new ECG Changes – ST-segment elevation MI (STEMI), non-STEMI (NSTEMI) ischemia without ST-segment changes, T-wave inversion, ST-T wave abnormalities, left bundle branch clock (LBBB), Pathological Q waves
- Imaging evidence (Doppler, ultrasound or ECHO) showing new loss of viable myocardium or new regional wall motion abnormality consistent with ischemia
- Angiography, cardiac computed tomography angiography (CCTA) or autopsy showing new coronary thrombus

Examples of Cardiac Biomarkers

- Cardiac Troponin I (cTnI), T (cTnT) or C (cTnC)
- Creatinine Kinase (CK-MB)

- Myoglobin

188) Necrotic Pancreas Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a necrotic pancreas.

Definition: The first date the patient has a documented necrotic pancreas identified within 30 days following admission.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

189) Pneumonia Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop pneumonia.

Definition: The first date the patient meets one of the pneumonia criteria in the table below within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients. All criteria must all be met but the date recorded should be the date when the first element used to meet the criteria occurred.

Pneumonia Criteria				
Radiology		**Signs/Symptoms**		**Pneumonia S & S**
Two or more serial chest imaging (x-ray or CT) results with at least **one** report of "new and persistent" or "progressive and persistent" • Consolidation • Infiltrate • Cavitation Note: • One definitive imaging test result is acceptable in a patient without underlying pulmonary or cardiac disease (e.g. COPD, CHF ect.) • Serial imaging should be no less than 12 hours apart and no more than 7 days apart.	AND	At least **one** of the following: • Leukopenia < 4,000 WBC/mm^3 or leukocytosis $\geq$ 12,000 WBC/mm3 • Fever > 38^o C • For adults > 70 years of age, altered mental status without another identified cause	AND	**A**t least **two** of the following pneumonia signs/symptoms • New onset of purulent sputum, or change in character of sputum (e.g. color, consistency, odor, quantity), or increased respiratory secretions or suctioning • New onset dyspnea, tachypnea (RR> 25 breaths per minute) or worsening cough • Rales (crackles) or rhonchi (bronchial breath sounds) • Worsening gas exchange (e.g. O_2 desaturation, increase oxygen requirements or increase ventilator demand)

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

- Signs and symptoms used to meet the pneumonia criteria must occur within a window of 3 calendar days before to 3 calendar days after the first positive Radiology test (total 7-day window). Second positive radiology test may be outside this window.

Day 1	Day 2	Day 3	1st Positive Radiology test (Day 4)	Day 5	Day 6	Day 7

- If the patient has the first criteria for pneumonia on the day of admission or the first day after admission, consider that pneumonia was present on admission and exclude this date for this variable. Documentation of signs & symptoms in the record that occurred within 2 days prior to admission can be used to meet criteria for pneumonia present on admission. If pneumonia is present on admission, must wait 14 days from first criteria date (admission date or first day after date) to look for a repeat (second) occurrence of pneumonia that could be included.
- Physician diagnosis of pneumonia alone does not meet the pneumonia criteria above and cannot be used in place of the criteria above.
- Aspiration pneumonia should be included if the patient meets the above pneumonia criteria.
- Other non-definitive terms to describe pneumonia by Radiology include air-space disease, opacity, focal opacification, patchy areas of increase density. Documentation that the physician interprets these Radiology results as indicative of pneumonia and antibiotics are administered can be used to meet Radiology criteria.

190) Pulmonary Embolism Date (mm/dd/yyyy)

Intent: To track the prevalence of patients who develop new pulmonary embolism(PE).

Definition: The first date the patient has a **new** PE confirmed by an appropriate diagnostic study (e.g. CT Pulmonary Angiogram (CTPA), Ventilation-Perfusion (V-Q) scan, CT Spiral/Helical scan, Pulmonary Arteriogram, Trans-esophageal echocardiogram (TEE), 2D Echocardiogram, heart catheterization) within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

191) Retained Common Bile Duct Stone Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who have a retained common bile duct stone following cholecystectomy.

Definition: The first date the patient has a documented retained common bile duct stone within 30 days after the cholecystectomy.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have a cholecystectomy.

Exclude: Patients who do not have a cholecystectomy.

Note:

192) Sepsis Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop sepsis.

Definition: The first date the patient has Sepsis meeting the criteria in the table below within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Sepsis	***Infection Source:*** Documentation of a new confirmed or suspected infection source within 72 hours.	**And**	At least **TWO** of the following ***Systemic Signs/Symptoms:*** • Heart Rate (HR) > 90 beats per minute • Respiratory Rate (RR) > 20 breaths per minute • Temperature > 38^{o} C or < 36^{o} C • White blood cell (WBC) > 12,000/cu mm or < 4,000/cu mm or immature (band) forms > 10% Note: • A **maximum of one calendar day** allowed between new ***Infection Source*** documentation and ***Systemic Signs/Symptoms*.** • A **maximum of 6 hours** is allowed between any two of the ***Systemic Signs/Symptoms***. • ***Systemic Signs/Symptoms*** must be new and not related to a chronic condition .

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

- Leave blank if the patient develops severe sepsis/septic shock.
- Acute pancreatitis is NOT an infection source.
- Infection can be bacterial, fungal, viral or parasitic.
- "Suspected Sepsis" is NOT a documented source of infection.

- "Suspected infection due to ___" is an acceptable infection source (e.g. suspected infection from anastomotic leak).
- Nursing documentation referencing an infection source or treatment of a new infection is acceptable.
- New infection source (not present pre-op/intra-op), sepsis can be assigned again any time even if it was assigned pre-op.
- Same infection source, could upgrade to severe sepsis post-op (occurrences) if the patient only had sepsis assigned pre-op. Time windows listed in table still apply.
- Same infection source and assigned sepsis or severe sepsis pre-op, can't assign the same again until at least post-op day 7.

193) Severe Sepsis/Septic Shock Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop sever sepsis/septic shock.

Definition: The first date the patient has Sever Sepsis/Septic Shock meeting the criteria in the table below within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Sepsis	Infection Source: Documentation of a new confirmed or suspected infection source within 72 hours.	**And**	At least **TWO** of the following Systemic Signs/Symptoms: • Heart Rate (HR) > 90 beats per minute • Respiratory Rate (RR) > 20 breaths per minute • Temperature > 38° C or < 36° C • White blood cell count > 12,000/cu mm or < 4,000/cu mm or immature (band) forms > 10% Note: • A **maximum of one calendar day** allowed between new ***Infection Source*** documentation and ***Systemic Signs/Symptoms*.** • A **maximum of 6 hours** is allowed between any two of the ***Systemic Signs/Symptoms***. • ***Systemic Signs/Symptoms*** must be new and not related to a chronic condition

Severe Sepsis/Septic Shock	Must meet the above criteria for Sepsis. Note: A **maximum of 6 hours** is allowed between System Signs/Symptoms of (Sepsis criteria above) and signs of Organ Dysfunction.	**And**	At least **ONE** of the following signs of Organ Dysfunction: • Systolic Blood Pressure (SBP) < 90 mmHg • Mean Arterial Pressure (MAP) < 65 mmHg • Systolic Blood Pressure (SBP) decrease > 40 mmHg from baseline • Lactate > 2 mmol/L • INR > 1.5 or aPTT > 60 seconds • Platelet count < 100,000 µL • Bilirubin > 2mg/dL • Creatinine > 2 mg/dL • Urine output < 0.5 mL/kg/hour x 2 • Hypotension requiring vasopressor therapy to maintain or elevate MAP > 65 mmHg Note: • Dysfunction criteria cannot be related to a chronic condition (e.g. low urine output with chronic renal failure). • Organ dysfunction criteria must be remote from the infection source. • Only documented blood pressures are to be used regardless of vasopressor administration.

Include: All

Exclude: N/A

Note:

- Acute pancreatitis is NOT an infection source.
- Infection can be bacterial, fungal, viral or parasitic.
- “Suspected Sepsis” is NOT a documented source of infection.
- “Suspected infection due to ___” is an acceptable infection source (e.g. suspected infection from anastomotic leak).
- Nursing documentation referencing an infection source or treatment of a new infection is acceptable.
- New infection source (not present pre-op/intra-op), sepsis can be assigned again any time even if it was assigned pre-op.
- Same infection source, could upgrade to severe sepsis post-op (occurrences) if the patient only had sepsis assigned pre-op. Time windows listed in table still apply.

- Same infection source and assigned sepsis or severe sepsis pre-op, can't assign the same again until at least post-op day 7.

Note: If the patient develops a surgical site infection (SSI), a date should **ONLY** be entered in **one** of the three variables below. If no SSI, leave all three blank.

194) SSI Deep Incisional Date (mm/dd/yyyy)

Intent: To track the prevalence of post-operative patients' who develop deep incisional surgical site infection (SSI).

Definition: The first date within the 30 days following the principal operative procedure that the patient has an infection involving the deep soft tissue (e.g. facial, muscle) at the incision site **and** at least one of the following:

- Purulent drainage from the deep incision but not from the organ/space.
- An abscess or evidence of infection found in the deep incision using direct examination, reoperation, histopathologic or radiologic studies.
- A deep incision that dehisces or is deliberately opened by a surgeon **and** the patient has one or more documented signs/symptoms of infection (i.e. fever >38 degrees Celsius, localized pain, tenderness). Do not use this criterion if incision is culture-negative.
- Surgeon or attending documentation of the diagnosis of deep incisional SSI.

Variable Options: Date in mm/dd/yyyy format

Include: All surgical patients.

Exclude: Patients who did not have surgery.

Note:

- Leave blank if the patient develops organ/space SSI.
- An organ/space SSI that drains through the incision should be reported as a deep incisional SSI.

195) SSI Organ/Space Date (mm/dd/yyyy)

Intent: To track the prevalence of post-operative patients' who develop organ/space SSI.

Definition: The first date within the 30 days following the principal operative procedure that the patient has an infection involving any part of the anatomy incisional (e.g. organ, spaces) other than at the incision site **and** at least one of the following:

- Purulent drainage from a drain placed into the organ/space through a stab wound.

- Organisms isolated from a culture (aseptically obtained) of the organ/space fluid or tissue.
- An abscess or evidence of infection found in the organ/space using direct examination, reoperation, histopathologic or radiologic studies.
- Surgeon or attending documentation of the diagnosis of organ/space SSI.

Variable Options: Date in mm/dd/yyyy format

Include: All surgical patients.

Exclude: Patients who did not have surgery.

Note:

196) SSI Superficial Incisional Date (mm/dd/yyyy)

Intent: To track the prevalence of post-operative patients' who develop superficial incisional SSI.

Definition: The first date within the 30 days following the principal operative procedure that the patient has an infection of only the skin and/or subcutaneous tissue at the incision site **and** at least one of the following:

- Purulent drainage from the superficial incision (with or without confirming laboratory test).
- Organisms isolated from a culture (aseptically obtained) of the superficial incision site fluid or tissue.
- A superficial incision deliberately opened by a surgeon **and** the patient has one or more documented signs/symptoms of infection (i.e. localized pain, tenderness, redness, localized swelling, heat). Do not use this criterion if incision is culture-negative.
- Surgeon or attending documentation of the diagnosis of superficial incisional SSI.

Variable Options: Date in mm/dd/yyyy format

Include: All surgical patients.

Exclude: Patients who did not have surgery.

Note:

- Leave blank if the patient develops a deep incisional or organ/space SSI.
- Do not enter a date if stich abscess only.

SSI Reference: Ingrahm, A., Shiloach, M. et al. ACS NSQIP BEST PRACTICES GUIDELINE: Prevention of Surgical Site Infections. (2009).

https://oregonpatientsafety.org/docs/resources/ACS_NSQIP_Best_Practices_Guideline-_Prevent_SSI.pdf

197) Stroke/CVA Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a stroke/cerebral vascular accident (CVA).

Definition: The first date the patient develops a CVA (embolic, thrombotic or hemorrhagic) with deficits (e.g. hemiplegia, aphasia, sensory deficits, memory loss) that persist for 24 hours or more within 30 days following the principle operative procedure or within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

198) Urinary Tract Infection CAUTI Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a catheter associated urinary tract infection (CAUTI).

Definition: The date that the first "Urinary Tract Infection Criteria" is identified on a patient with: a current indwelling urinary catheter that has been in place for at least 2 consecutive days during this admission (day 3 is the first date they quality)

OR

an indwelling urinary catheter that was in place for at least 2 consecutive days during this admission but had been removed the day before the occurrence date.

Urinary Tract Infection Criteria (both criteria must be met to qualify)		
ONE of the following symptoms: • Fever (>38O C or 100.4O F) • Urgency • Frequency • Dysuria • Suprapubic tenderness (e.g. **lower** abdominal, bladder or pelvic pain) • Costovertebral angle pain or tenderness (e.g. **left or right** lower back or flank pain/tenderness)	**AND**	Urine culture with > 10^5 (100,000) CFU/mL of not more than 2 species of organisms but at least one of which is a bacterium.

Variable Options: Date in mm/dd/yyyy format

Include: Patients who qualify based on time catheter is in place, symptoms and culture.

Exclude: Patients who never have an indwelling urinary catheter (IUC) **OR** patients who never have an IUC for at least 2 consecutive days **OR** patients who have a IUC for 2 consecutive days but it was removed greater than one day prior to occurrence.

Qualify	No	No	Yes	Yes	Yes	No
Patient A	IUC day 1	IUC day 2	IUC Day 3	IUC removed Day 4		

Note:

- A catheter that is in place for any portion of the calendar day qualifies as a day.
- CAUTI occurrence can be included for up to 30 after discharge if catheter remains in past discharge.

- Symptoms used to meet the UTI criteria must occur within a window of 3 calendar days before to 3 calendar days after the first positive urine culture (total 7-day window).

Day 1	Day 2	Day 3	1st Positive Culture (Day 4)	Day 5	Day 6	Day 7

- If the patient has the first criteria for UTI on the day of admission or the first day after admission, consider that UTI was present on admission and exclude this date for this variable. Documentation of criteria in the record that occurred within 2 days prior to admission can be used to meet criteria for UTI present on admission. If UTI is present on

admission, must wait 14 days from first criteria date (admission date or first day after date) to look for a repeat (second) occurrence of UTI that could be included.

- Intermittent straight catheterization or condom catheter do not qualify as an indwelling urinary catheter.
- Urostomy, ileal conduit, nephrostomy tubes and suprapubic catheters do not qualify as an indwelling urinary catheter.
- Urgency, frequency and/or dysuria cannot be used if the patient has a catheter in place.
- Suprapubic tenderness should only be used if no other cause for this tenderness
- If a catheter is removed and reinserted after at least 1 full calendar day, the 2-day count to qualify for a CAUTI is restarted.
- Candida, yeast, mold, dimorphic fungi or parasites are organisms that cannot be used to meet the urine culture criteria of bacterium.

UTI Reference: Centers for Disease Control and Prevention. Urinary Tract Infection (Catheter-Associated Urinary Tract Infection [CAUTI] and Non-Catheter-Associated Urinary Tract Infection [UTI]) Events. (2020). https://www.cdc.gov/nhsn/pdfs/pscmanual/7psccauticurrent.pdf

199) Urinary Tract Infection Non-CAUTI Date (mm/dd/yyyy)

Intent: To track the prevalence of patients' who develop a Non-CAUTI.

Definition: The date that the first "Urinary Tract Infection Criteria" is identified on a patient who did not have an indwelling urinary catheter that was in place for > 2 consecutive days during this admission **OR** had a catheter in place at least 2 days this admission but it was removed more than one day ago.

Urinary Tract Infection Criteria (both criteria must be met to qualify)		
ONE of the following symptoms: • Fever >38^{O} C in a patient that is **≤ 65 years of age** • Urgency • Frequency • Dysuria • Suprapubic tenderness (e.g. **lower** abdominal, bladder or pelvic pain) • Costovertebral angle pain or tenderness (e.g. **left or right** lower back or flank pain/tenderness)	AND	Urine culture with > 10^5 (100,000) CFU/mL of not more than 2 species of organisms but at least one of which is a bacterium.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

- A catheter that is in place for any portion of the calendar day qualifies as a day.
- Non-CAUTI occurrence can be included for up to 30 after discharge.
- Symptoms used to meet the UTI criteria must occur within a window of 3 calendar days before to 3 calendar days after the first positive urine culture (total 7-day window).

Day 1	Day 2	Day 3	1st Positive Culture (Day 4)	Day 5	Day 6	Day 7

- If the patient has the first criteria for UTI on the day of admission or the first day after admission, consider that UTI was present on admission and exclude this date for this variable. Documentation of criteria in the record that occurred within 2 days prior to admission can be used to meet criteria for UTI present on admission. If UTI is present on admission, must wait 14 days from first criteria date (admission date or first day after date) to look for a repeat (second) occurrence of UTI that could be included.
- In a patient that is > 65 years of age you cannot use fever as the symptom.
- Urgency, frequency and/or dysuria cannot be used if the patient has a catheter in place.
- Candida, yeast, mold, dimorphic fungi or parasites are organisms that cannot be used to meet the urine culture criteria of bacterium.

UTI Reference: Centers for Disease Control and Prevention. Urinary Tract Infection (Catheter-Associated Urinary Tract Infection [CAUTI] and Non-Catheter-Associated Urinary Tract Infection [UTI]) Events. (2020). https://www.cdc.gov/nhsn/pdfs/pscmanual/7psccauticurrent.pdf

200) Wound Disruption Date (mm/dd/yyyy)

Intent: To track the prevalence of post-operative patients who develop would dehiscence.

Definition: The date a post-operative patient developed wound dehiscence requiring return to surgery while still admitted to the hospital.

Variable Options: Date in mm/dd/yyyy format

Include: All surgical patients.

Exclude: Patients who did not have surgery.

Note:

Tab 18 - Discharge

201) Hospital Discharge Date (mm/dd/yyyy)

Intent: To capture date that the patient leaves the current acute care hospital to allow the tracking of timeframes.

Definition: The date the patient left the current acute care hospital setting.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

- Use the ADT discharge date unless the patient expires.
- If the patient expires in the hospital, use the date of death as the discharge date.
- If the patient is discharged to sub-acute care within your hospital (e.g. rehab unit, hospice, psychiatric unit) record the date of the transfer if a discharge date is not available.

202) Hospital Discharge Time (Military Time 00:00)

Intent: To capture time that the patient leaves the current acute care hospital to allow the tracking of timeframes.

Definition: The time the patient left the current acute care hospital setting.

Variable Options: military time in hh:mm format

Include: All

Exclude: N/A

Note:

- Use the ADT discharge time unless the patient expires.
- If the patient expires in the hospital, use the time of death as the discharge time.
- If the patient is discharged to sub-acute care within your hospital (e.g. rehab unit, hospice, psychiatric unit) record the time of the transfer if a discharge time is not available.

203) Discharge Status

Intent: To capture survival to discharge.

Definition: Indicate if the patient was alive or dead at the time they left the hospital.

Variable Options:

a. Alive
b. Dead

Include: All

Exclude: N/A

204) Discharge Disposition

Intent: To capture information about disposition at discharge from the current acute care hospital.

Definition: The patient's destination at discharge from the current acute care hospital.

Variable Options:

a. Expired
b. Home Care for Skilled Care
c. Home or Self-Care – e.g. home, group home, foster care, jail/prison
d. Hospice-Home
e. Hospice Medical Facility (Certified) – e.g. inpatient hospice care facility, discharged from acute care hospital but remains at the same hospital under hospice care.
f. Inpatient Rehab (Acute)
g. Left AMA
h. Long Term Care Hospital
i. Other Type of Healthcare Institution – e.g. inpatient drug/alcohol rehab, residential chemical dependency program, inpatient detox facility
j. Psychiatric Hospital – or distinct psychiatric unit of the hospital
k. Short-Term Hospital for Inpatient Care
l. Skilled Nursing Facility (SNF) – includes sub acute rehab at a SNF

Include: All

Exclude: N/A

Note: Use discharge summary and case management notes to determine most accurate discharge disposition.

205) Return to ED/UC Date (mm/dd/yyyy) 1-3

Intent: To track unscheduled returns for care.

Definition: The date the patient returned to an emergency department or urgent care following discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: None

Note: Leave blank if patient does not return. Leave blank if the patient returns to the ED and then is readmitted (complete Readmission Date below).

206) Readmission Date (mm/dd/yyyy)

Intent: To track readmissions following discharge.

Definition: The date the patient was readmitted to a hospital following discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: None

Note: Leave blank if patient does not return. Readmissions to your facility with a surgery consult/admit AND related to the surgical problem from the prior episode (index admit) should **also** have a new patient entry (new MACS case number) in Qualtrics.

207) Death Date Within 30 days Post Operation (mm/dd/yyyy)

Intent: To identify patents who died intraoperatively or within 30 days after the principal operative procedure.

Definition: Note the date of death if patient dies intraoperative or within 30 days after the principal operative procedure. Also include non-operative patient deaths within 30 days of first acute care general surgery consultation.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who die within 30 days after the principal operative procedure. Also include non-operative patient deaths within 30 days of first acute care general surgery consultation.

Exclude: Patients who do not die within 30 days.

Note:

208) Last Date of Follow Up (mm/dd/yyyy)

Intent: To identify the last date that there is patient follow up related information documented in the medical record.

Definition: Note the last date of follow up information documented in the medical record (preferably > or equal to 30 days)

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Note:

209) Comments

Intent: Provide a free text space for collection of additional information based on the needs of individual centers.

Definition: As determined by the center.

Variable Options: Free text

Include: N/A

Exclude: N/A

Notes:

Appendix A

Hernia Resource – Page 1		
Product Name	Mesh Type	Manufacturer/Brand
AlloDerm	Biological	Allergan (Other)
AlloMax	Biological	Bard
Bard Mesh/Bard Soft Mesh	Synthetic Non-Absorbable	Bard/Davol
Bio-A	Synthetic Absorbable	Gore
Surgisis Biodesign	Biological	Cook (Other)
Cellis	Biological	Mecellis biotech (Other)
CollaMend/CollaMend FM	Biological	Bard
Composix/EX/LP	Synthetic Non-Absorbable	Bard
Cortiva	Biological	RTI Surgical (Other)
C-Qur/C-Our Lite	Biosynthetic	Atrium
DermaMatrix	Biological	Synthes (Other)
Dexon	Synthetic Absorbable	Covidien
Dulex	Synthetic Non-Absorbable	Bard
DualMesh	Synthetic Non-Absorbable	Gore
DynaMesh	Synthetic Non-Absorbable	FEG (Other)
Epiflex	Biological	DIZG (Other)

FlexHD	Biological	MTF/Ethicon
FortaGen	Biological	Organogenesis (Other)
Fortiva	Biological	RTI Surgical (Other)
Goretex DualMesh	Synthetic Non-Absorbable	Gore
Infinit	Synthetic Non-Absorbable	Gore
Intramesh T1	Synthetic Non-Absorbable	Cousin Biotech (Other)
Marlex	Synthetic Non-Absorbable	Bard
Mersilene	Synthetic Non-Absorbable	Ethicon/J&J
MotifMesh	Synthetic Non-Absorbable	Proxy Biomedical/Maquet (Other)
Optilene	Synthetic Non-Absorbable	Braun (Other)
Parietex Flat 2d Mesh	Synthetic Non-Absorbable	Medtronic/Covidien
Parietex Composite	Synthetic Absorbable	Medtronic/Covidien
Parietene/Parietene Light	Synthetic Absorbable	Medtronic/Covidien
Periguard	Biological	Baxter (Other)
Permacol	Biological	Covidien
Phasix	Biosynthetic	Bard
Physiomesh	Synthetic Absorbable	Ethicon
PolyPRO	Synthetic Non-Absorbable	Soft Tissue Science (Other)
Proceed	Biosynthetic	Ethicon
Prolene	Synthetic Non-Absorbable	Bard/Davol
Prolene Soft	Synthetic Non-Absorbable	Ethicon

SEE Hernia Resource Part 2 on Next Page

Hernia Resource - Part 2		
Product Name	Mesh Type	Manufacturer/Brand
ProLite	Synthetic Non-Absorbable	Atrium
ProLite Ultra	Synthetic Non-Absorbable	Atrium
Rebound HRD	Synthetic Non-Absorbable	FEG (Other)
Reconix	Synthetic Non-Absorbable	Bard
Safil Mesh	Synthetic Absorbable	Braun (Other)
SepraMesh	Biosynthetic	Bard
Strattice	Biological	LifeCell (Other)
SurgiMend	Biological	Integra (Other)
SurgiPro	Synthetic Non-Absorbable	Covidien
TIGR Matrix	Synthetic Absorbable	Novus Scientific (Other)
TiMartix	Synthetic Non-Absorbable	BioMet Biologics (Other)
Trelex	Synthetic Non-Absorbable	Getinge/Maquet (Other)
TutoMesh	Biological	RTI Surgical
Ultrapro	Synthetic Absorbable	Ethicon
Ventralex	Synthetic Non-Absorbable	Bard
Ventralight ST	Synthetic Absorbable	Bard
Ventrio	Synthetic Absorbable	Bard
Veritas Collagen Matrix	Biological	Baxter (Other)
Vicryl	Synthetic Absorbable	Ethicon

VitaMesh	Synthetic Non-Absorbable	Proxy Biomedical/Maquet (Other)
Vypro	Synthetic Absorbable	Ethicon
Vypro II	Synthetic Absorbable	Ethicon
ZenMatrix	Biological	Bard
XCM Biologic Tissue Matrix	Biological	Ethicon

Change Log

Date	#	Variable	Change