M·ACS

2024 Data Dictionary

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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. BO
b. DR
c. HP
d. MC
e. MH
f. MM
g. SH
h. SJ
i. SP
j. UM

Include: All

Exclude: N/A

Notes:

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: Sequential number.

Include: All

Exclude: N/A

Notes:

- Should not be the medical record number or visit number.
- Avoid use of duplicate numbering.

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, this 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:

- If a name is hyphenated, remove the hyphen and leave a space.
- Enter the patient's legal name.
- Do not enter the middle name or middle initial.

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 a name is hyphenated, remove the hyphen and leave a space.
- Enter the patient's legal name.

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

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

Definition: The month, day, and year 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. It 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. It may also be used when investigating disparities in care 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** select “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, select “Black or African American” **and** “Hispanic or Latino” for the ethnicity.
- If the patient declined to answer, select “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. It may also be used when investigating disparities in care or outcomes.

Definition: Hispanic or Latino is 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.

12) **Address (1234 Main Street)**

Intent: Capture the patient's current address.

Definition: The patient's current address (street number and street name).

Variable Options: Format example 1234 Main Street

Include: All

Exclude: N/A

Notes:

- If no address is available, please leave blank.

13) **City**

Intent: Capture the patient's current address.

Definition: The patient's city of residence.

Variable Options: Free Text

Include: All

Exclude: N/A

Notes:

- If no address is available, please leave blank.

14) **State**

Intent: Capture the patient's current address.

Definition: The patient's state of residence.

Variable Options: Select state from the dropdown menu.

Include: All

Exclude: N/A

Notes:

- If no address is available, please leave as "Michigan."

15) **ZIP Code**

Intent: Capture the patient's current address.

Definition: The patient's zip code.

Variable Options: 5-digit number, format example: 12345

Include: All

Exclude: N/A

Notes:

- Enter the first five digits. 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

Notes:

- If no phone number is available, please leave it 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. This information may be utilized for risk stratification and investigation of postoperative outcomes, as there is an association between payer type and health outcomes.

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

Variable Options:

a. **Government Medicaid (straight)** (Does not include HMO plans)
b. **Government Medicare (all)** (Includes: traditional Medicare (Medicare Fee-for-Service (FFS)), Medicare Part A, Part B, or Medicare Part A/B, and non-BCN/BCBS Michigan Medicare Advantage).
c. Government Medicare & Medicaid
d. **Government Other Payer** (e.g., TriCare, VA Health Benefits)
e. **HMO BCN Medicare Advantage** (e.g., Blue Care Network Advantage HMO)
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** (e.g., Medicare Plus Blue PPO)
j. **Non-HMO BCBS Michigan** (e.g., Blue Cross Blue Shield (BCBS) PPO or EPO specific to Michigan)
k. **Non-HMO Commercial** (e.g., non-Michigan BCBS PPO or EPO, other payer Michigan and out-of-state non-HMO, Workers' 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 track timeframes.

Definition: The date the patient arrives to your ED.

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 the date the patient arrives at your ED.
- Leave blank if the patient was not treated in the ED.
- Patients 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 the patient is available to be seen by a physician provider in the ED to track timeframes.

Definition: The time the patient arrives to your ED.

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 the time the patient arrives at your ED.
- Leave 00:99 if the patient was not treated in the ED.
- Patients admitted from OB triage or Women's triage, leave the ED Arrival date and time blank.

21) **Admit Date**

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

Definition: The date the patient physically leaves the ED for transport to the inpatient unit.

Variable Options: Date in mm/dd/yyyy format

Include: N/A

Exclude: Patients treated only in the ED.

Notes:

- Leave blank if the patient was managed only in the ED and did not have surgery.
- For direct admits to your hospital, report the date that the patient arrives to the inpatient unit. Include women admitted from OB triage or Women's triage as a direct admit.
- For patients going from the ED to an inpatient unit, report the date that they leave the ED.
- 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.
- Admit date for patients presenting from home for interval elective surgery will be the **OR in-room** date from the anesthesia record.
- This is not the date that the admission order was placed, it is the date that the patient physically leaves the ED.

22) **Admit Time (Military Time 00:00)**

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

Definition: The time the patient physically leaves the ED for transport to the inpatient unit.

Variable Options: military time in hh:mm format

Include: N/A

Exclude: Patients treated only in the ED.

Notes:

- Leave 00:99 if the patient was managed only in the ED and did not have surgery.
- For direct admits to your hospital, report the time that the patient arrives to the inpatient unit. Include women admitted from OB triage or Women's triage as a direct admit.
- For patients going from the ED to an inpatient unit, report the time that they leave the ED.
- Admit time for patients not admitted before going to the OR (e.g., ED to OR) will be the **in-room** time from the anesthesia record.
- Admit time for patients presenting from home for interval elective surgery will be the **OR in-room** time from the anesthesia record.
- This is not the time that the admission order was placed, it is the time that the patient physically leaves the ED.

23) **Point of Entry**

Intent: To capture the patient's location before being admitted to your hospital if needed for case-mix adjustment.

Definition: To capture the patient's location before being admitted to your hospital.

Variable Options:

a. Direct Admit
   - Include admissions from home, assisted living facility, group home, jail/prison, skilled care facility, nursing home, long term acute care.
   - Include patients directly admitted from a physician's office or urgent care.

b. ED
   - Patient presents from home to your ED.
   - If the patient presents to an outside ED and then presents to your ED by private car **without** transfer paperwork/orders.
   - Patients who present from a skilled nursing facility to the ED.

c. Transfer from Outside Hospital ED
   - Patient is transferred ED to ED.
   - ED to ED by ambulance or private car **with** transfer paperwork/orders.
   - Include patient transferred from "free standing ED" to your ED.

d. Transfer from Outside Hospital Inpatient
   - Patient is transferred inpatient to inpatient.

e. Transfer from Outside Hospital ED to Inpatient Unit
   - Patient is transferred from outside hospital ED to inpatient unit.
   - Include patient transferred from "free standing ED" to inpatient unit.

f. Emergency Department Only/Not Admitted
   - A patient who is never admitted and never has surgery.

g. Other
   - Admit via OB/women's triage, admit from inpatient rehab
   - Transfer from psychiatric unit, hospice unit, ambulatory surgery center directly to an inpatient bed.

Include: All

Exclude: N/A

Notes:

24) **Transport Mode**

Definition: Identify the mode of transport delivering the patient to your hospital.

Values:

a. Ground Ambulance
b. Helicopter Ambulance
c. Fixed-wing Ambulance
d. Private/Public Vehicle/Walk-in
e. Police
f. Other

Include: All patients who are transferred to your hospital.

Exclude: Patients who are not transferred to your hospital.

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 of the first general surgery consult.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- Initial general surgery consult or admit H&P notes are 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., a consult and then an inpatient H&P, use the consult date).
- Use the general surgery consult date if there is a general surgery consult and a surgical critical care consult.
- If the patient is a direct admit to the operating room **or** a consult in the operating room, enter the in-room date from the Anesthesia record.

26) **Surgery Consult Order Time (Military Time 00:00)**

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

Definition: Indicate the time that the first general surgery consult order was placed.

Variable Options: Time in hh:mm format

Include: All

Exclude: N/A

Notes:

- The time of the first order should be used if there is more than one general surgeon who sees the patient (e.g., a consult and then an inpatient H&P, use the consult time).
- Use the general surgery consult order time if there is a general surgery consult and a surgical critical care consult.
- If the patient is a direct admit to the operating room **or** a consult in the operating room, enter the in-room time from the Anesthesia record.

27) **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 surgeon's name.

Include: All

Exclude: N/A

Notes:

- Initial general surgery consult or admit H&P are acceptable sources.
- The general surgery attending physician listed on the first note should be used if more than one note (e.g., a consult and then an inpatient H&P, use the consult note).
- If more than one surgeon is listed in the general surgery consult note or admit H&P, list the name of the general surgeon who signs off on the initial consult or admit H&P.
- If there is a general surgery consult and a surgical critical care consult, use the surgeon's name from the general surgery consult.
- If the patient is a 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.

28) **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:

- There may be multiple services within an institution covering emergency general surgery/surgical critical care. In a community setting, numerous physician practices may 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.

29) **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 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 on hospital arrival.

Variable Options:

a. Admit – the patient is initially admitted to general surgery on hospital arrival
b. Consult – general surgery is consulted to see the patient, but the patient is admitted to another service
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 the service sees in the ED who are discharged from the ED (not admitted to the hospital).
- If the patient is admitted to another service initially (e.g., medicine/GI), but transfers to general surgery later during the admission, select “Consult”.

Tab 4 – Risk Factors

30) **Height (cm)**

Intent: To capture the patient's height for risk stratification.

Definition: The patient's height as documented in the medical record before 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.

Notes:

- You may use a documented height recorded from another episode of care if there is not a height recorded during this admission.

31) **Weight (kg)**

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

Definition: The patient's first weight as documented in the medical record.

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.

Notes:

- Report the first actual or stated weight for the admission in the chart.
- If there is not a weight recorded for the current admission, leave this blank.

32) **Ascites**

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

Definition: The patient had accumulated 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 before the principal operative procedure for surgery patients or within 30 days before 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 or cancer in the medical record)
b. No

Include: All

Exclude: N/A

Notes:

- Select “No” for “minimal,” “trace,” or “small amount” of ascites noted.
- Select “No” for ascites unrelated to liver disease or cancer.

33) **CHF w/in 30 Days**

Intent: To identify patients with a new diagnosis of congestive heart failure (CHF) or patients with chronic CHF who had a recent acute exacerbation for 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 before surgery or 30 days before admission for medically managed patients. CHF should be noted in the medical record.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- Select “Yes” for patients who have an LVAD in place.

34) **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 use of home O2)
   - 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

Notes:

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

35) **COVID-19**

Intent: To identify patients with a known or suspected COVID-19 infection on admission or had contracted COVID-19 within the last 12 months for risk stratification.

Definition: Determine the likelihood that the patient had a COVID-19 infection on admission or had contracted COVID-19 within the past 12 months.

Variable Options:

a. **Confirmed Positive Active** – The patient is tested and confirmed positive on hospital day 1 or hospital day 2.
b. **Positive Historic** – The patient was tested and confirmed positive within the last 12 months *prior to admission* **OR** there is self-report/physician documentation that the patient was COVID-19 positive within the last 12 months *prior to admission*. **Capture this element even if the patient is tested and confirmed negative on arrival.
c. **Suspected** – The patient has signs and symptoms consistent with COVID-19 but is not tested on admission. **Capture Positive Historic if patient meets criteria.
d. **Unlikely** – The patient has no symptoms of COVID-19 and was not tested on admission. **Capture Positive Historic if patient meets criteria.
e. **Confirmed Negative** – The patient was tested on admission (hospital day 1 or hospital day 2) and confirmed negative. **Capture Positive Historic if patient meets criteria.

Include: All

Exclude: N/A

Notes:

- The patient must have a positive COVID-19 test on hospital day 1 or hospital day 2 for them to qualify as positive “on admission”.

36) **Current Cancer/Malignancy**

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

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

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

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

- Select "Yes" if the patient received treatment (e.g., chemotherapy, radiation therapy, hormone therapy, surgery) for a malignancy within one year before 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.

37) **Diabetes Mellitus**

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

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

Variable Options:

a. Insulin – Diagnosis of diabetes and patient requires insulin daily (with or 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 diabetes)

Include: All

Exclude: N/A

Notes:

- Select "No" if a temporary sliding scale is the only use of insulin.
- Before admission, if a patient 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.
- Include patients with documented "pre-diabetes" requiring parenteral insulin or an oral hypoglycemic agent.

38) **Dialysis w/in 2 Weeks**

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

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

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- If the patient refuses needed dialysis, select “Yes.”

39) **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 or near terminal.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- 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 principal 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.”
- Select “Yes” for Acute Lymphocytic Leukemia (ALL), Acute Myelogenous Leukemia (AML), and Stage IV Lymphoma.
- Select “No” for Chronic Lymphocytic Leukemia (CLL), Chronic Myelogenous Leukemia (CML), and Stages I through III Lymphoma, or Multiple Myeloma.
- Hyperlink to the American Cancer Society as an additional resource located here.

40) **Hypertension**

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

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

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- To answer "Yes," must have both a diagnosis in the patient's medical record and an antihypertensive treatment.
- Diagnosis must be present prior to admission.
- Exclude if documentation reports medication noncompliance.
- Exclude hypertension controlled only by diet and exercise.

41) **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 **prior to** 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

Notes:

- ADLs include bathing, feeding, dressing, toileting, and mobility.
    - Example: If notes indicate that a patient was independent with ADLs prior to arriving to the hospital, but then decompensated and required intubation prior to surgery, select "Independent".

42) **Personal History of DVT/PE**

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

Definition: The patient has a personal history of VTE (deep vein thrombosis or pulmonary embolism).

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- Select “No” for patients with a history of “thrombophlebitis” (inflammation of the vein), superficial vein thrombosis, and arterial thrombosis.
- Select “Yes” if the patient has a history of deep vein thrombosis of the extremities or pulmonary embolism.
- Patients with a history of clots/thrombi found in any of the following veins: axillary, brachial, deep femoral, femoral (which may be referred to as “superficial femoral” but is a deep vein), fibular, gastrocnemius, iliac, internal jugular, peroneal, popliteal, portal, radial, soleal, subclavian, tibial, ulnar, and vena cava.
- Include patients with documentation of past medical history of “DVT” not otherwise specified.
- Select “Yes” if the patient was diagnosed with a DVT or PE during this admission before their general surgery operation.
    - Example: A patient with no prior history of DVT is admitted for cardiac surgery. After the cardiac surgery, the patient develops a DVT. The patient then develops ischemic bowel, and acute care surgery is consulted. The patient undergoes emergent ex-lap with ACS for bowel ischemia. Select “Yes” for Personal History of DVT/PE.

43) **Pregnancy**

Intent: To identify currently pregnant patients for preoperative risk stratification purposes.

Definition: The patient has one of the following documented:

- Current pregnancy is documented in the H&P or progress notes.
- Positive pregnancy test documented preoperatively or on admission for non-operative patients.

Variable Options:

a. Yes
b. No

Include: All people determined to be genetic females at birth.

Exclude: All people determined to be genetic males at birth.

Notes:

44) **Preoperative or Admission Sepsis**

Intent: To identify patients with pre-operative sepsis or sepsis on admission for non-operative patients for risk stratification purposes.

Definition: The patient has sepsis defined by having a new suspected/confirmed infection in criteria A **AND** one or more acute organ dysfunction listed among criteria B within the appropriate time frames below.

- *Operative patients this admission*: Documentation of a new suspected/confirmed infection source prior to surgery (or found intraoperatively) AND acute organ dysfunction criteria met within the window period which includes calendar day of surgery (prior to surgery start time) and the two prior calendar days.
- *Non-operative patients this admission*: All sepsis criteria must be met on hospital day #1 and hospital day #2.

A. <u>New Suspected/Confirmed Infection</u>

Infection sources may include but not limited to: acute appendicitis, acute cholecystitis, acute abdominal infection, acute diverticulitis, organ perforation/perforated viscus, abscess, positive cultures, anastomotic leak, gangrene/necrosis, "suspected/possible infection from xx", physician diagnosis of infection or meets MACS definition of infection (SSI, UTI, PNA), empyema, meningitis, skin/soft tissue infection, bone/joint infection, wound infection, bloodstream catheter infection, endocarditis, implantable device infection, acute sinus infection.

AND

B. <u>Acute Organ Dysfunction</u> (at least 1 of the following criteria met within the window period which includes calendar day of surgery (prior to surgery start time) and the two prior calendar days for surgical patients; criteria met on hospital day #1 or hospital day #2 for non-operative patients):

1. Increased respiratory support ≥ 4L (35%) oxygen for >2 hours
    - Note: This does not need to be consecutive hours
    - **AND** no ICD10 for chronic respiratory failure with hypoxemia (J96.11 or J96.21) coded on admission and no history of home oxygen use
2. Serum Creatinine ≥ 1.2 **AND** 50% increase from baseline (lowest value during hospitalization) **AND** no ICD10 for end-stage renal dysfunction (N18.6) coded on admission
3. Platelet count < 100 K/µL **AND** > 50% decline in platelets from baseline (highest value during hospitalization)
4. Total bilirubin ≥ 2.0 mg/dL **AND** doubling of total bilirubin from baseline (lowest value during hospitalization)
    - Note: Total bilirubin criteria cannot be used for patients with acute gallbladder disease.
5. Lactate ≥ 2.0 mmol/L

6. Treatment with any of the following intravenous vasopressors (at any dose): Angiotensin II, Dopamine, Norepinephrine, Epinephrine, Phenylephrine, or Vasopressin ***outside*** of the operating room.
7. Documentation of mental status alteration, defined as deviation from the patient's baseline cognitive status.
    - Include: confusion, lethargy, reports that the patient is acting out of usual character, unresponsiveness, somnolence, comatose state, encephalopathy
    - Please also include Nursing documentation of altered mental status.

Variable Options:

a) Yes
b) No

Include: All

Exclude: N/A

Notes:

- 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.
- For patients transferred from an outside ED or outside hospital, all vital sign and lab data to capture sepsis must be data obtained at your hospital upon or after arrival.

Window Period for Surgical Patients

Table 1: Window period for pre-op sepsis. Both new suspected/confirmed infection (criteria A) and organ dysfunction (criteria B) need to be met within a 3-day calendar window prior to the surgery start time. This window includes the calendar day of surgery (before surgery start time) and the two calendar days prior.

Hospital Day No.	1	2	3	4 ACS Index Surgery (includes before surgery start time)
New Suspected or Confirmed Infection Window		**A** ***May include intra-operative infection source if not documented pre-op**		
Window Period for Acute Organ Dysfunction		**B** ***Cannot include intra-operative period for capture of organ dysfunction**		

- For surgical patients, if an infection source was not suspected or confirmed pre-op but it is identified intra-operatively (during the index ACS case) and the patient has acute organ dysfunction criteria met within the **3-calendar day window before surgery** (on day of ACS index surgery before surgery start time or within the 2 calendar days prior), then preoperative sepsis can be assigned.
    - Example: A patient presents to your ED with altered mental status and a lactate > 2.0, but CT findings only demonstrate bowel obstruction. There is no mention of bowel necrosis or other new infection source in the documentation prior to surgery. The patient is taken emergently from the ED to OR that day and is found to have bowel necrosis with peritonitis intra-operatively. Preoperative sepsis can be assigned since the patient met sepsis criteria B within the appropriate window period pre-op.
- For surgical patients, acute organ dysfunction (criteria B) for pre-op sepsis cannot be met intra-operatively.

Window Period for Non-surgical Patients

Table 2: For non-surgical patients, both sepsis criteria A and criteria B must be met on hospital day #1 or hospital day #2 to be considered sepsis on admission.

Hospital Day No.	*1*	*2*	*3*	*4*
New Suspected or Confirmed Infection	**A**			
Acute Organ Dysfunction	**B**			

45) **Prior Opioid Use**

Intent: To determine if a patient has been taking opioids before admission.

Definition: Descriptors documented in the patient's medical record noting current use of recreational or prescribed opioids *or* opioid medication listed in the patient's current outpatient medication list on admission.

Variable Options:

i. Yes
ii. No

Include: All

Exclude: N/A

Notes:

- Drug Search
- All routes of administration are included

46) **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 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

Notes:

47) **Solid Organ Transplant**

Intent: To identify patients who have a history of solid organ transplant for risk stratification purposes.

Definition: The patient has had a solid organ transplant.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- A solid organ is the heart, lung, kidney, pancreas, liver, or small bowel.

48) **Steroid/Immunosuppressive Medication**

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

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

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

- Select “No” if the patient 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

49) **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 before admission.

Variable Options:

a. Yes
b. No

Include: All

Exclude: NA

Notes:

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

50) **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 before 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

Notes:

Tab 5 – Readmission

51) **MACS Readmit**

Intent: To capture patients who have previously been included in the MACS database to evaluate 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:

52) **Index Disease**

Intent: To capture the index disease category for patients who have previously been abstracted in the MACS database to evaluate management outcomes.

Definition: The disease category that the patient had qualified for during prior or index admission.

Variable Options:

a. Appendix
b. Gallbladder
c. Small Bowel
d. Exploratory Laparotomy

Include: All patients having hospital readmission following discharge.

Exclude: N/A

Notes:

- The purpose of this question is to associate a readmission case to a MACS Index Disease.
- If readmission reason is completely unrelated to the prior index admit disease and based on Primary ICD-10 coding, the readmission qualifies for another MACS Organ System disease, then consider this readmission as a new index disease and select the current reason for admission.
    - **For example**, if a patient had a prior appendectomy and is readmitted for a cholecystectomy, select "Gallbladder" for Index Disease.
    - A patient had an emergent exploratory laparotomy during their index admission and is readmitted with a small bowel obstruction due to adhesions from the surgery. During readmission, the small bowel obstruction is managed medically. Select "Exploratory Laparotomy" for Index Disease.
    - A small bowel obstruction patient is managed medically during the index admission. They are then readmitted and undergo an emergent exploratory laparotomy for treatment of the small bowel obstruction. Select "Small Bowel" for Index Disease.

53) **Prior Appendectomy**

Intent: To capture patients who have previously had an appendectomy before this hospital readmission.

Definition: The patient has had their appendix removed at your center, an outside hospital, or an outside surgery center before this readmission.

Variable Options:

a. Yes
b. No

Include: All patients who are a MACS readmit.

Exclude: Patients who are not a MACS readmit.

Notes:

- The purpose of this question is to identify patients who had their appendix removed before readmission. This could be at your hospital, another hospital, or an outpatient surgical facility.
- This will assist in the capture of complications related to appendix removal such as stump appendicitis, abscess, etc.

54) **Prior Cholecystectomy**

Intent: To capture patients who have previously had a cholecystectomy before this hospital readmission.

Definition: The patient has had their gallbladder removed at your center, an outside hospital, or an outside surgery center before this readmission.

Variable Options:

a. Yes
b. No

Include: All patients who are a MACS readmit.

Exclude: Patients who are not a MACS readmit.

Notes:

- The purpose of this question is to identify patients who had their gallbladder removed before readmission. This could be at your hospital, another hospital, or an outpatient surgical facility.
- This will assist in the capture of complications related to gallbladder removal such as cystic duct stump leak, abscess, recurrent cholecystitis in a gallbladder remnant from prior partial cholecystectomy, etc.

Tab 6 – Disease

55) **Primary ICD-10 Code**

Intent: To identify the primary reason the patient was admitted 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 an 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.

56) **Secondary ICD-10 Code**

Definition: A significant post-discharge ICD-10 code that reflects a related or unrelated problem that will add further description 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:

- May use an ICD-10 code related to the general surgery problem that will further add to the description of the general surgery problem.
  - 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.
  - Example: An ex-lap patient has a cancerous mass that causes a bowel obstruction, leading to small bowel ischemia. The PRIMARY ICD-10 would be bowel ischemia, and the SECONDARY ICD-10 would be cancerous mass.
- May alternatively use an ICD-10 code that reflects a diagnosis significant to the patient's admission/management but *not* related to the general surgery problem.

57) **Organ System**

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

Definition: Indicate the first MACS qualifying disease for the patient during this hospitalization: appendix (acute appendicitis), gallbladder (acute gallbladder disease), small bowel obstruction, or emergent/urgent exploratory laparotomy. An emergent exploratory laparotomy case is defined by the surgeon or anesthesia using an "E" in the ASA score. An urgent exploratory laparotomy case is one that goes to the operating room within 48 hours of the decision to operate.

Variable Options:

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

Include: All

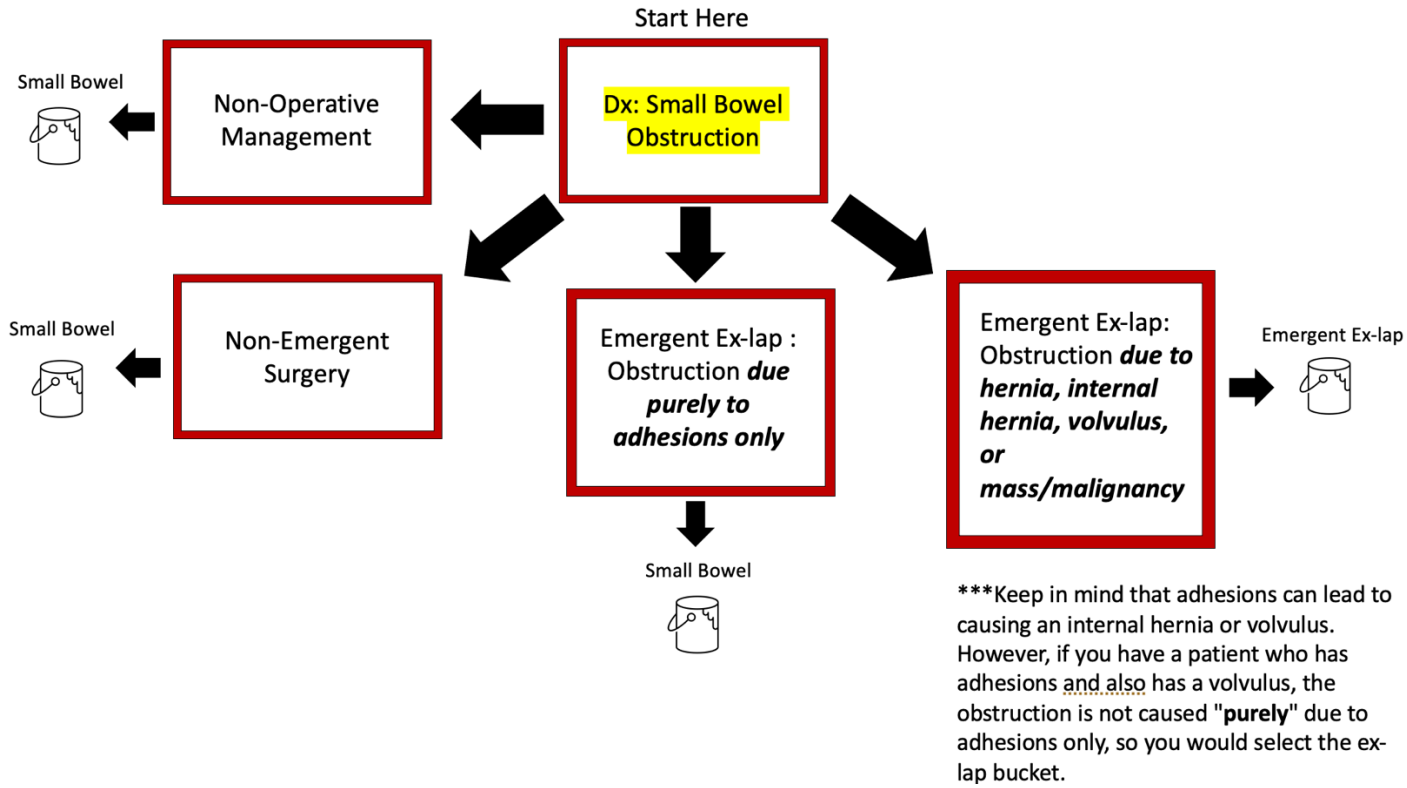
Exclude: N/A

Notes:

- Select "None" if this is a READMISSION case AND if the PRIMARY ICD-10 code is not reflective of a MACS qualifying appendicitis, gallbladder disease, or small bowel obstruction diagnosis and the patient did not have an exploratory laparotomy on this readmit.
  For example, if the patient had a cholecystectomy and got readmitted with Primary ICD-10 code K65.1 (peritoneal abscess), select "None." If the patient gets readmitted with Primary ICD-10 code K80.50 (choledocholithiasis), which is a MACS qualifying gallbladder disease code, then select "Gallbladder."
- Select "Exploratory Laparotomy" 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 the patient is having surgery for an interval appendectomy.
- Select "Appendix" if the patient had a prior appendectomy and is admitted with stump appendicitis.
- If the patient qualifies for two different MACS qualifying disease categories during this admission, select the first MACS qualifying disease that the patient experiences during this hospitalization. For small bowel obstruction with ex-lap, please see below.
- If the patient has an emergent exploratory laparotomy to manage a small bowel obstruction caused by volvulus, hernia, internal hernia, or mass/malignancy, select "Exploratory Laparotomy". See flowchart below.

- If the patient has an emergent exploratory laparotomy to manage a small bowel obstruction caused by adhesive bowel disease or something **other than** volvulus, hernia, internal hernia, or mass/malignancy, select "Small Bowel". See flowchart below.
- 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.

SBO versus Ex-lap Organ System Flowchart:



Tab 6 – Appendix

***Note:** If **interval appendectomy,** then skip ahead to the "Pathology Result" question below and "Appendicitis Type" question below and then skip ahead to "Appendectomy within 12 months".*

58) **Diagnosis CT Scan**

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

Definition: Identify if a CT scan was performed as a part of the 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 or physician/surgeon interpretation of imaging in the progress notes, OR note, etc. may be included).

59) **CT Results**

Intent: To capture the results of tests 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".

60) **CT Findings**

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

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

Variable Options:

a. Abscess
    - Yes
    - No
b. Cecum and/or Terminal Ileum Inflammation
    - Yes
    - No
c. Fecalith (aka appendicolith)
    - Yes
    - No
d. Free Air
    - Yes
    - No
e. Free Fluid
    - Yes
    - No
f. Phlegmon
    - Yes
    - No

Include: All patients with a positive or equivocal CT scan for appendicitis.

Exclude: Appendicitis patients who do not have a CT scan.

Notes:

- If CT scan mentions ascites, select "Yes" for free fluid.
- If CT mentions any volume of fluid, including small or trace volume of fluid, select "Yes" for free fluid.
- The difference between a phlegmon and an abscess is that an abscess is walled-off (encapsulated), but a phlegmon is soft connective tissue inflammation that is unbounded and can continue spreading.

61) **Diagnosis Ultrasound**

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

Definition: Identify if an ultrasound was performed as a part of the 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).
- Exclude transvaginal ultrasound.

62) **Ultrasound Results**

Intent: To capture the results of tests 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 appendicitis but other ultrasound findings (e.g., mass, carcinomatosis, cyst) that could be related to the final diagnosis, select “Equivocal”.

63) **Diagnosis MRI**

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

Definition: Identify if an MRI was performed as a part of the 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).

64) **MRI Results**

Intent: To capture the results of tests 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 appendicitis but other MRI findings (e.g., mass, carcinomatosis, cyst) that could be related to the final diagnosis, select “Equivocal”.

65) **Pathology Result**

Intent: To allow the hospital/service to track negative pathology in appendectomy patients and provide 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, acute perforated appendicitis, or sequela of prior appendicitis such as scarring, atrophy, or other findings consistent with prior 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.
- Sequela of prior acute appendicitis can be found in the pathology report or noted by the surgeon in the operative report.

66) **Appendicitis Type**

Intent: To collect information that helps determine the patient's health status before appendicitis management.

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

Variable Options:

a. Uncomplicated (e.g., non-perforated appendicitis)
    - CT or physicians' notes indicate uncomplicated appendicitis
b. Complicated-Comorbidity (e.g., patient with 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:

67) **Medical Management**

Intent: To determine the volume of patients who have 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.

68) **Outpatient Management Pathway**

Intent: To determine the volume of patients who start on an outpatient medical management pathway for appendicitis in the ED.

Definition: The patient was initiated on an outpatient medical management pathway for appendicitis during this encounter (regardless of whether the patient was discharged from the ED or admitted).

Variable Options:

a. Yes
b. No

Include: All acute appendicitis patients.

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

Notes:

*If the appendicitis patient is being **treated surgically**, do not answer the IV antibiotic questions next. Go directly to the "Appendectomy within 12 months" question.*

69) **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
b. Aminopenicillin
c. Antistaphylococcal Penicillin
d. Carbapenem
e. Cephalosporin – Generation 1
f. Cephalosporin – Generation 2
g. Cephalosporin – Generation 3
h. Cephalosporin – Generation 4
i. Extended-Spectrum Penicillin
j. Glycopeptide
k. Lincosamide
l. Macrolide
m. Monobactam
n. Natural Penicillin
o. Nitroimidazoles
p. Oxazolidinones
q. Quinolone
r. Sulfonamide
s. Tetracycline
t. Other

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- If more than three classes of IV antibiotics are administered, enter the three administered the greatest number of days.
- Link to MACS Antibiotic Reference.

70) **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:

- Calendar day is assigned to the date the administered dose was started.
- Do not count a dose that continues onto the next calendar day as two doses.

71) **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
b. Aminopenicillin
c. Antistaphylococcal Penicillin
d. Carbapenem
e. Cephalosporin – Generation 1
f. Cephalosporin – Generation 2
g. Cephalosporin – Generation 3
h. Cephalosporin – Generation 4
i. Extended-Spectrum Penicillin
j. Glycopeptide
k. Lincosamide
l. Macrolide
m. Monobactam
n. Natural Penicillin
o. Nitroimidazoles
p. Oxazolidinones
q. Quinolone
r. Sulfonamide
s. Tetracycline
t. Other

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- If more than three classes of IV antibiotics are administered, enter the three administered the greatest number of days.
- Link to MACS Antibiotic Reference.

72) **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:

- Calendar day is assigned to the date the administered dose was started.
- Do not count a dose that continues onto the next calendar day as two doses.

73) **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
b. Aminopenicillin
c. Antistaphylococcal Penicillin
d. Carbapenem
e. Cephalosporin – Generation 1
f. Cephalosporin – Generation 2
g. Cephalosporin – Generation 3
h. Cephalosporin – Generation 4
i. Extended-Spectrum Penicillin
j. Glycopeptide
k. Lincosamide
l. Macrolide
m. Monobactam
n. Natural Penicillin
o. Nitroimidazoles
p. Oxazolidinones
q. Quinolone
r. Sulfonamide
s. Tetracycline
t. Other

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- If more than three classes of IV antibiotics are administered, enter the three administered the greatest number of days.
- Link to MACS Antibiotic Reference.

74) **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:

- Calendar day is assigned to the date the administered dose was started.
- Do not count a dose that continues onto the next calendar day as two doses.

75) **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 the patient was prescribed antibiotics 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 notes, discharge record, or orders.
- If there are different durations for home antibiotics, enter the longer duration.

76) **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
b. Aminopenicillin
c. Antistaphylococcal Penicillin
d. Carbapenem
e. Cephalosporin – Generation 1
f. Cephalosporin – Generation 2
g. Cephalosporin – Generation 3
h. Cephalosporin – Generation 4
i. Extended-Spectrum Penicillin
j. Glycopeptide
k. Lincosamide
l. Macrolide
m. Monobactam
n. Natural Penicillin
o. Nitroimidazoles
p. Oxazolidinones
q. Quinolone
r. Sulfonamide
s. Tetracycline
t. Other

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- If more than three classes of IV antibiotics are administered, enter the three administered the greatest number of days.
- Link to MACS Antibiotic Reference.

77) **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
b. Aminopenicillin
c. Antistaphylococcal Penicillin
d. Carbapenem
e. Cephalosporin – Generation 1
f. Cephalosporin – Generation 2
g. Cephalosporin – Generation 3
h. Cephalosporin – Generation 4
i. Extended-Spectrum Penicillin
j. Glycopeptide
k. Lincosamide
l. Macrolide
m. Monobactam
n. Natural Penicillin
o. Nitroimidazoles
p. Oxazolidinones
q. Quinolone
r. Sulfonamide
s. Tetracycline
t. Other

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- If more than three classes of IV antibiotics are administered, enter the three administered the greatest number of days.
- Link to MACS Antibiotic Reference.

78) **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
b. Aminopenicillin
c. Antistaphylococcal Penicillin
d. Carbapenem
e. Cephalosporin – Generation 1
f. Cephalosporin – Generation 2
g. Cephalosporin – Generation 3
h. Cephalosporin – Generation 4
i. Extended-Spectrum Penicillin
j. Glycopeptide
k. Lincosamide
l. Macrolide
m. Monobactam
n. Natural Penicillin
o. Nitroimidazoles
p. Oxazolidinones
q. Quinolone
r. Sulfonamide
s. Tetracycline
t. Other

Include: All medically managed appendicitis patients.

Exclude: N/A

Notes:

- If more than three classes of IV antibiotics are administered, enter the three administered the greatest number of days.
- Link to MACS Antibiotic Reference.

79) **Appendectomy Within 12 Months**

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

Definition: Identify if the patient had a medically managed appendicitis 12 months before the appendectomy.

Variable Options:

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

80) **Diagnosis Ultrasound**

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

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

Variable Options:

a. Yes
b. No

Include: All gallbladder patients.

Exclude: N/A

Notes:

- Exclude transvaginal ultrasound.
- Include OSH imaging prior to transfer.

81) **Diagnosis CT Scan**

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

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

Variable Options:

a. Yes
b. No

Include: All gallbladder patients.

Exclude: N/A

Notes:

- Include OSH imaging prior to transfer.

82) **Diagnosis HIDA**

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

Definition: Identify if a HIDA was performed as a part of initial gallbladder workup during this admission (e.g., before surgery if surgical management or at any time during the admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gallbladder patients.

Exclude: N/A

Notes:

- Include OSH imaging prior to transfer.

83) **Diagnosis EUS**

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

Definition: Identify if an EUS was performed as a part of initial gallbladder workup during this admission (e.g., before surgery if surgical management or at any time during the admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gallbladder patients.

Exclude: N/A

Notes:

- Include EUS from an outside hospital prior to transfer.

84) **Diagnosis ERCP**

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

Definition: Identify if an ERCP was performed as a part of the gallbladder workup during this admission (e.g., before surgery if surgical management or at any time during the admission for medically managed).

Variable Options:

a. Yes
b. No

Include: All gallbladder patients.

Exclude: N/A

Notes:

- DO NOT include ERCP from an outside hospital.
- If the patient did not have an ERCP for diagnosis or medical management, skip to question “Diagnosis MRI/MRCP” below.

85) **Diagnosis ERCP Procedure 1**

Intent: To evaluate the use of selected procedures performed during ERCP as a treatment for gallbladder disease patients.

Definition: Identify the gallbladder procedure performed during Diagnosis ERCP done at your hospital during current admission.

Variable Options:

a. Stent Placement - Common Bile Duct
    - Yes
    - No
b. Stent Placement - Cystic Duct
    - Yes
    - No
c. Stent Placement - Pancreatic Duct
    - Yes
    - No
d. Stent Placement - Other
    - Yes
    - No
e. Gallstone/Sludge Removal
    - Yes
    - No
f. Sphincterotomy
    - Yes
    - No
g. Stent Removal
    - Yes
    - No

Include: All patients who had an ERCP procedure for gallbladder disease.

Exclude: Patients who did not have an ERCP procedure for gallbladder disease and patients having outpatient ERCP following hospital discharge.

Notes:

- This section is for ERCP procedures performed for diagnosis and treatment before, or instead of, a cholecystectomy.
- For ERCP procedures performed after cholecystectomy, enter the procedure after “Secondary ERCP” below.
- Include ERCP procedures performed at any point during the admission.

86) **Diagnosis ERCP Procedure Date 1 (mm/dd/yyyy)**

Definition: The date the ERCP procedure was started at your hospital during current admission.

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

Include: All patients who had an ERCP procedure for gallbladder disease.

Exclude: Patients who did not have an ERCP procedure for gallbladder disease.

Notes:

- Multiple dates are often listed on reports and notes for the same procedure. Use the procedure start date if available.

87) **Diagnosis ERCP Procedure Time 1 (hh:mm)**

Definition: The time the ERCP procedure was started at your hospital during current admission.

Variable Options: Military time in hh:mm format.

Include: All patients who had an ERCP procedure for gallbladder disease.

Exclude: Patients who did not have an ERCP procedure for gallbladder disease.

Notes:

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

88) **Diagnosis ERCP Procedure 2**

Intent: To evaluate the use of selected procedures performed during an additional ERCP as a treatment for gallbladder disease patients.

Definition: Identify the procedures performed during an additional Diagnosis ERCP done at your hospital during current admission.

Variable Options:

a. Stent Placement - Common Bile Duct
    - Yes
    - No
b. Stent Placement - Cystic Duct
    - Yes
    - No
c. Stent Placement - Pancreatic Duct
    - Yes
    - No
d. Stent Placement - Other
    - Yes
    - No
e. Gallstone/Sludge Removal
    - Yes
    - No
f. Sphincterotomy
    - Yes
    - No
g. Stent Removal
    - Yes
    - No

Include: All patients who had an additional ERCP procedure for gallbladder disease.

Exclude: Patients who did not have an additional ERCP procedure for gallbladder disease and patients who had outpatient ERCP performed after hospital discharge.

Notes:

- This section is for ERCP procedures performed for diagnosis and treatment before, or instead of, a cholecystectomy.
- For ERCP procedures performed after cholecystectomy, enter the procedure after “Secondary ERCP” below.
- Include ERCP procedures performed at any point during the admission.

89) **Diagnosis ERCP Procedure Date 2 (mm/dd/yyyy)**

Definition: The date the additional ERCP procedure was started at your hospital during current admission.

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

Include: All patients who had an additional ERCP procedure for gallbladder disease.

Exclude: Patients who did not have an additional ERCP procedure for gallbladder disease.

Notes:

- Multiple dates are often listed on reports and notes for the same procedure. Use the procedure start date if available.

90) **Diagnosis ERCP Procedure Time 2 (hh:mm)**

Definition: The time the additional ERCP procedure was started at your hospital during current admission.

Variable Options: Military time in hh:mm format.

Include: All patients who had an additional ERCP procedure for gallbladder disease.

Exclude: Patients who did not have an additional ERCP procedure for gallbladder disease.

Notes:

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

91) **Diagnosis MRI/MRCP**

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

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

Variable Options:

a. Yes
b. No

Include: All gallbladder patients.

Exclude: N/A

Notes:

- Include OSH studies prior to transfer.

***Note:** For **medically managed gallbladder patients**, skip "Intra-op Cholangiogram" question and all "Secondary" study questions, leaving them defaulted as "No".*

92) **Intra-Op Cholangiogram**

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

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

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

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

93) **Secondary Ultrasound**

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

Definition: Identify if a post-operative ultrasound was performed during current admission following cholecystectomy.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

94) **Secondary CT Scan**

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

Definition: Identify if a post-operative CT scan was performed during current admission following cholecystectomy.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

95) **Secondary HIDA**

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

Definition: Identify if a post-operative HIDA was performed during current admission following cholecystectomy.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

96) **Secondary EUS**

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

Definition: Identify if a post-operative EUS was performed during current admission following cholecystectomy.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

97) **Secondary ERCP**

Intent: To capture the types of testing and procedures utilized to evaluate and treat patients after cholecystectomy.

Definition: Identify if a post-operative ERCP was performed during current admission following cholecystectomy.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: Outpatient ERCP performed after hospital discharge.

Notes:

98) **Secondary ERCP Procedure Type 1**

Intent: To evaluate the use of selected procedures performed during ERCP after cholecystectomy.

Definition: Identify the gallbladder procedures performed during Secondary ERCP.

Variable Options:

a. Stent Placement - Common Bile Duct
    - Yes
    - No
b. Stent Placement - Cystic Duct
    - Yes
    - No
c. Stent Placement - Pancreatic Duct
    - Yes
    - No
d. Stent Placement - Other
    - Yes
    - No
e. Gallstone/Sludge Removal
    - Yes
    - No
f. Sphincterotomy
    - Yes
    - No
g. Stent Removal
    - Yes
    - No

Include: All patients who had an ERCP procedure performed after cholecystectomy.

Exclude: Patients who did not have an ERCP procedure after cholecystectomy.

Notes:

- This section is for ERCP procedures performed for diagnosis and treatment after a cholecystectomy.
- For ERCP procedures performed before or instead of cholecystectomy, enter these under “Diagnosis ERCP” above.

99) **Secondary ERCP Procedure Date 1 (mm/dd/yyyy)**

Definition: The date the Secondary ERCP procedure was started at your hospital during current admission.

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

Include: All patients who had an ERCP procedure after cholecystectomy.

Exclude: Patients who did not have an ERCP procedure after cholecystectomy.

Notes:

- Multiple dates are often listed on reports and notes for the same procedure. Use the procedure start date if available.

100) **Secondary ERCP Procedure Time 1 (hh:mm)**

Definition: The time the Secondary ERCP procedure was started at your hospital during current admission.

Variable Options: Military time in hh:mm format.

Include: All patients who had an ERCP procedure after cholecystectomy.

Exclude: Patients who did not have an ERCP procedure after cholecystectomy.

Notes:

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

101) **Secondary ERCP Procedure 2**

Intent: To evaluate the use of selected procedures performed during additional ERCP after cholecystectomy.

Definition: Identify the procedures performed during an additional Secondary ERCP.

Variable Options:

a. Stent Placement - Common Bile Duct
    - Yes
    - No
b. Stent Placement - Cystic Duct
    - Yes
    - No
c. Stent Placement - Pancreatic Duct
    - Yes
    - No
d. Stent Placement - Other
    - Yes
    - No
e. Gallstone/Sludge Removal
    - Yes
    - No
f. Sphincterotomy
    - Yes
    - No
g. Stent Removal
    - Yes
    - No

Include: All patients who had an additional Secondary ERCP procedure post-surgery.

Exclude: Patients who did not have an additional Secondary ERCP procedure post-surgery.

Notes:

- This section is for ERCP procedures performed for diagnosis and treatment after a cholecystectomy.
- For ERCP procedures performed before or instead of cholecystectomy, enter these under “Diagnosis ERCP” above.
- Include ERCP procedures performed at any point during the admission.

102) **Secondary ERCP Procedure Date 2 (mm/dd/yyyy)**

Definition: The date the additional Secondary ERCP procedure was started at your hospital during current admission.

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

Include: All patients who had an additional Secondary ERCP procedure after cholecystectomy.

Exclude: Patients who did not have an additional Secondary ERCP procedure after cholecystectomy.

Notes:

- Multiple dates are often listed on reports and notes for the same procedure. Use the procedure start date if available.

103) **Secondary ERCP Procedure Time 2 (hh:mm)**

Definition: The time the additional Secondary ERCP procedure was started at your hospital during current admission.

Variable Options: Military time in hh:mm format.

Include: All patients who had an additional Secondary ERCP procedure after cholecystectomy.

Exclude: Patients who did not have an additional Secondary ERCP procedure after cholecystectomy.

Notes:

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

104) **Secondary MRI/MRCP**

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

Definition: Identify if a post-operative MRI was performed during current admission after cholecystectomy.

Variable Options:

a. Yes
b. No

Include: All cholecystectomy patients.

Exclude: N/A

Notes:

Tab 8 - Small Bowel Obstruction

105) **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 an outside hospital(s). Include self-reported (patient/family/guardian/caregiver) incidence of small bowel obstruction managed at outside hospitals.

106) **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 an outside hospital(s).
- Include self-reported (patient/family/guardian/caregiver) incidence of small bowel obstruction managed at outside hospitals.

107) **Prior Abdominal Procedures**

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

Definition: Determine if the patient has had prior abdominal or pelvic 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 this question.
- Include surgery into the intrapelvic space. Example: total abdominal hysterectomy.

108) **Prior Open Laparotomy**

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

Definition: Determine if the 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 this question.
- If there is no documentation that states that the prior abdominal surgery was an open abdominal surgery, leave this question defaulted to “No”.

109) **Prior Laparoscopy**

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

Definition: Determine if the 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 this question.
- If there is no documentation that states that the prior abdominal surgery was a laparoscopic abdominal surgery, leave this question defaulted to "No".

110) **Prior Mesh**

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

Definition: Determine if the patient has had prior abdominal or pelvic 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:

111) **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 or intra-pelvic structures.

Variable Options:

a. Yes
b. No

Include: All patients with a small bowel obstruction.

Exclude: Patients without a small bowel obstruction.

Notes:

112) **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:

113) **CT Scan**

Intent: To capture testing utilized to determine management.

Definition: Identify if a CT was performed as part of a 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:

- Include any CT that leads to information helpful to determining management (e.g., CT from an outside hospital with an internal read or physician/surgeon interpretation).

114) **CT Scan Date (mm/dd/yyyy)**

Intent: To identify the date the CT scan started.

Definition: Indicate the date the CT scan started.

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:

- If multiple CT scans were performed, enter the first CT scan demonstrating the bowel obstruction.
- If multiple dates are listed for the CT, enter the CT start date.
- Do not enter the date that the CT scan was ordered for this variable.
- If the CT scan was performed at an outside hospital prior to transfer to your center, enter the date that the patient arrived at your hospital.

115) **CT Scan Time (Military Time 00:00)**

Intent: To identify the time the CT scan was started.

Definition: Indicate the time the CT scan was started.

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:

- If multiple CT scans were performed, enter the first CT scan done demonstrating the bowel obstruction.
- If multiple times are listed for the CT, enter the CT start time.
- Do not enter the time that the CT was ordered for this variable.
- If the CT scan was performed at an outside hospital prior to transfer to your center, enter the time that the patient arrived at your hospital.

116) **Enteral Contrast**

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

Definition: Indicate if enteral contrast was given before 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.

117) **CT Findings**

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

Definition: Determine if the following variable options were identified in the CT report or the surgeon's 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.
- If free fluid or ascites is documented in any amount in the CT read, to include trace or small amount, select "Yes" for free fluid.

118) **Other CT Findings**

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

Definition: Determine if other CT findings are related to the patient's symptoms 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.

119) **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, operative notes), then select "No."
- If the radiologist uses words such as "tethered" or "tethering", "abnormal angulation", or "kinking" to describe the bowel on CT when there is an absence of other modifiers such as a mass or inflammation, then select "Yes" for this variable.

120) **Gastrografin Challenge**

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

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

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.
- The contrast media must be Gastrografin (diatrizoate) and cannot be any other contrast material such as barium.
- After the Gastrografin contrast is given an abdominal X-ray is performed or the patient resolves the small bowel obstruction.

121) **Gastrografin Challenge Date (mm/dd/yyyy)**

Intent: Identify the date the abdominal X-ray demonstrating results from the Gastrografin challenge was performed to decide ongoing surgical or non-surgical management.

Definition: Start 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:

- If more than one Gastrografin challenge X-ray is performed during the admission, then select the first Gastrografin challenge X-ray performed demonstrating contrast in the colon.
- If Gastrografin never makes it to the colon, then select the last abdominal X-ray image showing contrast has not made it to the colon.
- If Gastrografin challenge is given, but an abdominal X-ray is not performed, leave this date blank.

122) **Gastrografin Challenge Time (Military Time 00:00)**

Intent: Identify the time the abdominal X-ray demonstrating results from the Gastrografin challenge was performed to decide ongoing surgical or non-surgical management.

Definition: Start 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:

- If more than one Gastrografin challenge X-ray is performed during the admission, then select the first Gastrografin challenge X-ray performed demonstrating contrast in the colon.
- If Gastrografin never makes it to the colon, then select the last abdominal X-ray image showing contrast has not made it to the colon.
- If Gastrografin challenge is given, but an abdominal X-ray is not performed, leave this time blank.

123) **Gastrografin Result**

Intent: To capture the testing results utilized to determine the 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.
- If contrast is not seen in the GI tract because the patient vomited it out, or it was suctioned out by the NGT, select “Other”.
- If the contrast is not seen on X-ray in the GI tract because the patient completely passed it through their bowels and rectum while passing stool, select “Positive Colon”.
- If the radiology report does not indicate where the contrast is located but mentions that there is the probability of continued obstruction and the surgeon’s notes concur, then select “Negative Colon”.
- You may also use the physician’s notes to determine the Gastrografin challenge result for this question if the radiology report does not state where the contrast is located.
- If Gastrografin challenge is given, but abdominal X-ray is not performed because the patient started passing stool, select “Positive Colon”.
- If the patient has an ileostomy or no colon present for the Gastrografin to pass through, and the contrast is noted to have passed though the point of small bowel obstruction on imaging or in the progress notes, then select “Positive Colon”.

Tab 9 – Exploratory Laparotomy

124) **Abdominal X-Ray**

Intent: To capture testing utilized to determine management.

Definition: Identify if an abdominal X-ray was performed as part of the evaluation of the patient before 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.

Notes:

- Include any abdominal x-ray that leads to information helpful to determining management (e.g., AXR from an outside hospital with an internal read or physician/surgeon interpretation).

125) **Abdominal X-Ray Date (mm/dd/yyyy)**

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

Definition: Indicate the date the abdominal X-ray was started.

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

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

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

Notes:

- If multiple dates are listed for the abdominal X-ray, enter the X-ray start date.
- If multiple abdominal X-rays were performed, enter the date of the X-ray closest to index ex-lap surgery.
- If the abdominal X-ray was performed at an OSH prior to transfer to your hospital, enter the date that the patient arrived at your hospital.

126) **Abdominal X-Ray Time (Military Time 00:00)**

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

Definition: Indicate the time the abdominal X-ray was started.

Variable Options: military time in hh:mm format

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

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

Notes:

- If multiple times are listed for the X-ray, enter the X-ray start time.
- If multiple abdominal X-rays were performed, enter the time of the x-ray closest to surgery.
- If the abdominal X-ray was performed at an OSH prior to transfer to your hospital, enter the time that the patient arrived at your hospital.

127) **CT Scan**

Intent: To capture testing utilized to determine management.

Definition: Identify if a CT was performed as part of the 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.

Notes:

- Include any CT that leads to information helpful to determining management (e.g., CT from an outside hospital with an internal read or physician/surgeon interpretation).

128) **CT Scan Date (mm/dd/yyyy)**

Intent: To identify the date the CT scan was started.

Definition: Indicate the date the CT scan was started.

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

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

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

Notes:

- If multiple CT scans were performed, list the CT scan date done closest to the operation time.
- If multiple dates are listed for the CT, enter the CT start date.
- Do not enter the date that the CT was ordered for this variable.
- If the CT scan was performed at an outside hospital prior to transfer to your hospital, enter the date that the patient arrived at your hospital.

129) **CT Scan Time (Military Time 00:00)**

Intent: To identify the time the CT scan was started.

Definition: Indicate the time the CT scan was started.

Variable Options: military time in hh:mm format

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

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

Notes:

- If multiple CT scans were performed, list the CT scan time closest to the operation time.
- If multiple times are listed for the CT, enter the CT start time.
- Do not enter the time that the CT was ordered for this variable.
- If the CT scan was performed at an outside hospital prior to transfer to your hospital, enter the time that the patient arrived at your hospital.

130) **CT Findings**

Intent: To capture the testing results 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 surgeon's 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 before an emergent exploratory laparotomy.

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

Notes:

- If there is any volume of free fluid or ascites present on CT read, even small or trace, select "Yes" to free fluid.

131) **Other CT Findings**

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

Definition: Determine if other CT findings are related to the patient's symptoms 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:

- **For patients transferring to your hospital, all values need to be obtained at your hospital.**
- **The worst group of vital sign values should be obtained within a 60-minute window up to 12 hours before the exploratory laparotomy incision time.**
- **If there are no values available for a variable within the 12 hours before laparotomy incision time, leave the item default.**
- **Review how the NEWS 2 values are scored at https://www.mdcalc.com/national-early-warning-score-news-2. The highest point values are reflective of the worst patient condition.**
- **Do not enter values from two different blood gases. All blood gas values must be from the same time.**
- **If you do not have a pre-op blood gas result but you do have a pre-op lactate or lactic acid level within 12 hours before surgery, please enter the highest lactate value within 12 hours prior to surgery in the blood gas section.**

132) **NEWS 2 Score – Respiratory Rate (bpm)**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before emergent exploratory laparotomy.

Definition: The patient's 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.

Notes:

133) **NEWS 2 Score – Hypercapnic Respiratory Failure**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before emergent exploratory laparotomy.

Definition: The patient has a $PaCO_2$ >45 mmHg on arterial blood gas within 12 hours before 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 and patients who only have a venous blood gas prior to emergent exploratory laparotomy.

Notes:

- The blood gas type to determine this variable must an arterial blood gas result, not a venous blood gas result.

134) **NEWS 2 Score – SpO2**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before 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.

Notes:

135) **NEWS 2 Score – SpO2 in Respiratory Failure**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before emergent exploratory laparotomy.

Definition: The patient's oxygen saturation, including 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:

136) **NEWS 2 Score – Supplemental O2 or Room Air**

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

Definition: The patient is on room air or supplemental O2 within 12 hours before 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.

Notes:

137) **NEWS 2 Score – Temperature**

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

Definition: The patient's temperature within 12 hours before 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.

Notes:

138) **NEWS 2 Score – Systolic Blood Pressure (mmHg)**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before emergent exploratory laparotomy.

Definition: The patient's systolic blood pressure within 12 hours before 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.

Notes:

139) **NEWS 2 Score – Pulse (bpm)**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before emergent exploratory laparotomy.

Definition: The patient's pulse within 12 hours before 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.

Notes:

140) **NEWS 2 Score – Consciousness**

Intent: To use the National Early Warning Score (NEWS) 2 to determine the degree of illness within 12 hours before emergent exploratory laparotomy.

Definition: The patient's level of consciousness.

Variable Options:

a. Altered Consciousness
    - Documentation of mental status alteration, defined as deviation from the patient's baseline cognitive status
    - Examples: confusion, reports that the patient is acting out of usual character, unresponsiveness, somnolence, comatose state, encephalopathy,
    - Please also include Nursing documentation of altered mental status.
b. Alert – A fully awake patient with spontaneous eye-opening, responding to voice and motor function.

Include: All patients who have an emergent exploratory laparotomy.

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

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

Intent: To use the SIRS criteria to determine the degree of illness within 12 hours before 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.

Notes:

142) **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.

Notes:

- If the patient has both arterial and venous gases during the appropriate time frame, please select the arterial blood gas.
- If the patient has a “lactate” or “lactic acid” level but does not have any blood gas values (e.g., there is no pH, pCO2, pO2), then leave this section blank.

143) **Blood Gas Values**

Intent: To determine the degree of illness before emergent exploratory laparotomy.

Definition: The patient's blood gas values within 12 hours before 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 12 hours of surgery.

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

Notes:

- If the patient has both arterial and venous gases during the appropriate time frame, please enter the values for the arterial blood gas.
- Enter the "lactate" or "lactic acid" level resulted with the blood gas.
- If the patient has a "lactate" or "lactic acid" level, but no other blood gas values, then enter the highest lactate level within 12 hours prior to surgery incision time in the "Lactate" section. Leave the previous variable, "Arterial or Venous", blank.

144) **IV Antibiotic Date (mm/dd/yyyy)**

Intent: To identify when a patient receives IV antibiotics for an emergent general surgery condition at your hospital.

Definition: The date the patient received the first dose of IV antibiotics for an emergent general surgery condition at your hospital.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who have an emergent/urgent exploratory laparotomy.

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

Notes:

- Antibiotics given in the operating room may be included.
- If you have access to records of IV antibiotics given prior to transfer or in transit to your hospital, this may **not** be included as first dose of IV antibiotics.
- For patients arriving through your ED (from home or transfer from OSH) for acute abdomen, report the 1st IV antibiotic given.
- For patients admitted for a different medical issue (e.g., cardiac surgery, MI, PNA, etc.) who develop an acute abdomen later during their stay, report the 1st IV antibiotic given on the date of the initial ACS consult.

145) **IV Antibiotic Time (Military Time 00:00)**

Intent: To identify the time that antibiotics were initiated for an emergent general surgery condition.

Definition: The time the patient received the first dose of IV antibiotics for an emergent general surgery condition at your hospital.

Variable Options: military time in hh:mm format

Include: All patients who have an emergent/urgent exploratory laparotomy.

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

Notes:

- Antibiotics given in the operating room may be included.
- If you have access to records of IV antibiotics given prior to transfer or in transit to your hospital, this may **not** be included as first dose of IV antibiotics.
- For patients arriving through your ED (from home or transfer from OSH) for acute abdomen, report the 1st IV antibiotic given.
- For patients admitted for a different medical issue (e.g., cardiac surgery, MI, PNA, etc.) who develop an acute abdomen later during their stay, report the 1st IV antibiotic given on the day of the initial ACS consult.

146) **Total Ventilator Calendar Days**

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

Definition: Identify the number of calendar days 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:

- Include POD #0 as a calendar day.
    - Example: A patient has an operation, remains intubated post-op, and is transported to the ICU. The ICU staff then extubate the patient 8 hours later, within the same calendar day as surgery. Enter “1” for total ventilator calendar days.
- Exclude mechanical ventilation time associated with OR procedures or PACU (post-anesthesia care unit) with extubation occurring prior to transfer to the inpatient unit.

147) **ICU Admission Date (mm/dd/yyyy)**

Intent: To track the date 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.

Notes:

- Select the ICU admission date closest to the exploratory laparotomy if the patient has multiple ICU admits.
- If the patient was admitted to the ICU prior to the index ex-lap operation, include this date.
- If the patient has more than one ICU stay, enter the ICU admission date of the peri-operative ICU stay.

148) **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.

Notes:

- Select the ICU admission time closest to the exploratory laparotomy if the patient has multiple ICU admits.
- If the patient was admitted to the ICU prior to the index ex-lap operation, include this time.
- If the patient has more than one ICU stay, enter the ICU admission time of the peri-operative ICU stay.

149) **ICU Discharge Date (mm/dd/yyyy)**

Intent: To track the date 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.

Notes:

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

150) **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.

Notes:

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

151) **Total ICU Calendar Days**

Intent: To determine the duration of days the patient was admitted to an ICU during this hospital admission for length of stay/complication purposes.

Definition: Identify the number of calendar days the patient was admitted to an ICU during this hospital admission.

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:

- Report a whole number in full day increments with any partial calendar day counted as a full calendar day.
- Include all pre-op and post-op calendar days that the patient stayed in an ICU during the current hospitalization.

Tab 10 – Interventional Radiology

152) **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 IR procedures listed in the Variable Options for question IR Procedure Type 1 on the next page.

Variable Options:

a. Yes
b. No

Include: All

Exclude: N/A

Notes:

153) **IR Procedure Type 1**

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 Exchange
e. Cholecystostomy Tube Placement
f. Cholecystostomy Tube Removal
g. Drain
h. Embolization – with Angiogram
i. Gallbladder Ablation
j. Gallstone Extraction
k. Inferior Vena Cava (IVC) Filter
l. Paracentesis
m. Percutaneous Transhepatic Cholangiogram (PTC) Tube
n. Thoracentesis
o. Transjugular Intrahepatic Portosystemic Shunt (TIPS)
p. None

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

Exclude: N/A

Notes:

- If this is a gallbladder case, list pertinent gallbladder procedures first.

154) **IR Procedure Date 1 (mm/dd/yyyy)**

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

Definition: Indicate the date the IR procedure was started.

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

Include: All patients who have an IR procedure.

Exclude: N/A

Notes:

- Use the exam start date if available.

155) **IR Procedure Time 1 (Military Time 00:00)**

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

Definition: Indicate the time the IR procedure was started.

Variable Options: Military time in hh:mm format.

Include: All patients who have an IR procedure.

Exclude: N/A

Notes:

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

156) **IR Procedure Type 2**

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 Exchange
e. Cholecystostomy Tube Placement
f. Cholecystostomy Tube Removal
g. Drain
h. Embolization – with Angiogram
i. Gallbladder Ablation
j. Gallstone Extraction
k. Inferior Vena Cava (IVC) Filter
l. Paracentesis
m. Percutaneous Transhepatic Cholangiogram (PTC) Tube
n. Thoracentesis
o. Transjugular Intrahepatic Portosystemic Shunt (TIPS)
p. None

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

Exclude: N/A

Notes:

- If this is a gallbladder case, list pertinent gallbladder studies first.

157) **IR Procedure Date 2 (mm/dd/yyyy)**

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

Definition: Indicate the date the IR procedure was started.

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

Include: All patients who have an IR procedure.

Exclude: N/A

Notes:

- Use the exam start date if available.

158) **IR Procedure Time 2 (Military Time 00:00)**

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

Definition: Indicate the time the IR procedure was started.

Variable Options: Military time in hh:mm format.

Include: All patients who have an IR procedure.

Exclude: N/A

Notes:

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

159) **IR Procedure Type 3**

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 Exchange
e. Cholecystostomy Tube Placement
f. Cholecystostomy Tube Removal
g. Drain
h. Embolization – with Angiogram
i. Gallbladder Ablation
j. Gallstone Extraction
k. Inferior Vena Cava (IVC) Filter
l. Paracentesis
m. Percutaneous Transhepatic Cholangiogram (PTC) Tube
n. Thoracentesis
o. Transjugular Intrahepatic Portosystemic Shunt (TIPS)
p. None

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

Exclude: N/A

Notes:

- If this is a gallbladder case, list pertinent gallbladder studies first.

160) **IR Procedure Date 3 (mm/dd/yyyy)**

Intent: To identify the date the IR procedure was started

Definition: Indicate the date the IR procedure was started.

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

Include: All patients who have an IR procedure.

Exclude: N/A

Notes:

- Use the exam start date if available.

161) **IR Procedure Time 3 (Military Time 00:00)**

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

Definition: Indicate the time the IR procedure was started.

Variable Options: Military time in hh:mm format.

Include: All patients who have an IR procedure.

Exclude: N/A

Notes:

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

Tab 11 – Operation

162) **Operation**

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

Definition: Indicate if the patient had surgery in the operating room or critical care unit.

Variable Options:

a. Yes
b. No

Include: All patients who have a surgical procedure in the operating room or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Select “Yes” for surgical procedures performed at the bedside in a critical care unit.
- If a surgery was performed by a non-ACS surgeon for the condition that ACS is following, include this surgical procedure.
    - Example: ACS is consulted for a small bowel obstruction due to hiatal hernia. Thoracic surgery takes the patient to the OR to repair the hiatal hernia. Include the hiatal hernia repair performed by thoracic surgery.
    - Example: A patient previously admitted to ACS returns for elective cholecystectomy with a non-ACS subspecialty group. Include this elective cholecystectomy on the readmission case.

Tab 12 – Operation 1

163) **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 or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.

164) **Operation Incision Time 1 (Military Time 00:00)**

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

Definition: Indicate the time the surgical incision occurred.

Variable Options: military time in hh:mm format

Include: All patients who have a surgical procedure in the operating room or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.

165) **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 or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.
- If your hospital does not record operation dressing date, enter what your hospital records for similar operation end date.

166) **Operation Dressing Time 1 (Military Time 00:00)**

Intent: To identify the time the surgical procedure ended.

Definition: Indicate the time 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 or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.
- If your hospital does not record operation dressing time, enter what your hospital records for similar operation end time.

167) **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 or critical care unit.

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.

168) **Operative Surgeon 1 Other (Last name, First name)**

Intent: To identify the primary attending general surgeon for the operative procedure if the surgeon's 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 or critical care unit.

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.

169) **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 or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.

170) **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 or 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– The patient presents to the hospital, and then the decision to take the patient to surgery occurs. The patient requires the intervention before discharge.
    - For Exploratory Laparotomy cases, this is defined as patients who go to the operating room within 48 hours of the decision to operate.
    - For Appendix, Gallbladder, and Small Bowel cases, this is defined as patients who go to the operating room during current admission.

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 or critical care unit.

Exclude: N/A

Notes:

- Anesthesia could define a case as emergent by adding an “E” to the end of the ASA score.

171) **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 principal procedure.

Variable Options:

a. Open – One or more incisions are made to expose the underlying tissue/cavity and provide direct access to complete 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.
d. Robotic Technique – The surgeon utilizes a robotic device for assistance during the case.

Include: All patients who have a surgical procedure in the operating room or critical care unit.

Exclude: N/A

Notes:

172) **AAST Grade**

Intent: To capture the additional measure of anatomical severity of disease that impacts patient outcome.

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

Variable Options:

a. 1
b. 2
c. 3
d. 4
e. 5
f. N/A

Include: Patients with an Appendectomy or Cholecystectomy CPT code.

Exclude: Patients having an interval appendectomy.

Notes:

- See the hyperlink above for definitions of grades.
- Only complete for appendix and gallbladder removal.
- For patients undergoing cholecystectomy for choledocholithiasis or gallstone pancreatitis and have a normal appearing gallbladder, select an AAST grade of 1.
- Not all AAST criteria need to be met to assign the grade.

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

173) **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 or critical care unit.

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 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 CPT code in Qualtrics indicating which anatomical part was removed or fixed.
- Do not add lysis of adhesions coding to your hospital's coding unless this was all that the surgeon performed, or the surgeon asked to use Modifier 22 in the operative note due to significant lysis of adhesions, or if the surgeon indicated in the operative note that lysis of adhesions was a significant part of the case.
- If the patient had an ERCP performed intra-operatively, include the ERCP CPT code here. List the ACS surgeon as performing the procedure.

174) **Cholecystectomy Technique**

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

Definition: Indicate the cholecystectomy technique used during surgery.

Variable Options:

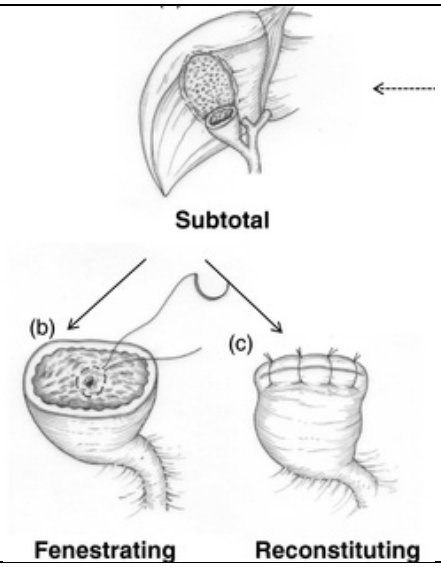
a. Total Excision
b. Sub-Total Excision w/Fenestration (gallbladder is opened, and then the cystic duct is potentially closed from the inside)
c. Sub-Total Excision w/Reconstitution (the walls of the gallbladder remnant are sutured or stapled together to close the remnant).
d. Sub-Total Excision Other/Not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

Include: Patients with a Cholecystectomy CPT code.

Exclude: Patients who do not have a cholecystectomy.

Notes:

- If the patient had a prior subtotal cholecystectomy, and they have the remainder of their gallbladder removed by your ACS team, then select “Total Excision”.



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

175) **Operation**

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

Definition: Identify which 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
h. Milking the bowel
    i. Yes
    ii. No

Include: Patients who had surgical management of small bowel obstruction, and are being abstracted within the Small Bowel tab.

Exclude: Patients who did not have surgery for small bowel obstruction within the Small Bowel tab.

Notes:

- “Milking” the bowel is a technique for surgical decompression. The intestinal contents are caressed cephalad into the stomach or caudally into the colon.

- Anti-adhesion barriers come in many forms such as films, sprays, or gels. Some of the agents include Preclude, Interceed, Seprafilm, SprayGel, Hyalobarrier gel, SurgiWrap, Oxiplex AP gel, Adept.

176) **Operative Findings**

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

Definition: Identify which 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 Bowel
    i. Yes
    ii. No
f. Dead Bowel
    i. Yes
    ii. No
g. Inadvertent Enterotomy
    i. Yes
    ii. No
h. Other
    i. Yes
    ii. No

Include: Patients who had surgical management of small bowel obstruction, and are being abstracted within the Small Bowel tab.

Exclude: Patients who did not have surgery for small bowel obstruction within the “Small Bowel” tab.

Notes:

- If the bowel obstruction is being caused by a single adhesive band, select “Single Band Adhesion”, even if other adhesions not causing the bowel obstruction are found during surgery.

- If the surgeon causes a “serosal tear” and not a “transmural” enterotomy, leave “Inadvertent Enterotomy” defaulted to “No”.

177) **Other Operative Findings**

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

Definition: Determine if other operative findings are related to the patient’s symptoms 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:

178) **Additional Operations**

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

Definition: The patient returned to the OR after the principal operative procedure or 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:

- 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.
- If a surgery was performed by a non-ACS surgeon for the condition that ACS is following, include this surgical procedure.
    - Example: ACS is consulted for a small bowel obstruction due to hiatal hernia. Thoracic surgery takes the patient to the OR to repair the hiatal hernia. Include the hiatal hernia repair performed by thoracic surgery.
    - Example: A patient previously admitted to ACS returns for elective cholecystectomy with a non-ACS subspecialty group. Include this elective cholecystectomy on the readmission case.

Tab 13 – Operation 2-8

179) **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 or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.

180) **Operation Incision Time 2-8 (Military Time 00:00)**

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

Definition: Indicate the time the surgical incision occurred.

Variable Options: military time in hh:mm format

Include: All patients who have a surgical procedure in the operating room or critical care unit.

Exclude: Patients who have surgical procedures in areas other than the operating room or critical care unit.

Notes:

- Include surgery procedures performed at the bedside in a critical care unit.

181) **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 or critical care unit.

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.

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

Intent: To identify the primary attending general surgeon for the operative procedure if the surgeon's 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 or critical care unit.

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.

183) **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– The patient presents to the hospital, and then the decision to take the patient to surgery occurs. The patient requires the intervention before discharge.
    - For Exploratory Laparotomy cases, this is defined as patients who go to the operating room within 48 hours of the decision to operate.
    - For Appendix, Gallbladder, and Small Bowel cases, this is defined as patients who go to the operating room during current admission.

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 or critical care unit.

Exclude: N/A

Notes:

- Anesthesia could define a case as emergent by adding an “E” to the end of the ASA score.

184) **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 or critical care unit.

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 or the more acute indication for the surgery as described in the operative report.
- For patients with bowel left in discontinuity, note the CPT code in Qualtrics indicating which anatomical part was removed or fixed.
- Do not add lysis of adhesions coding to your hospital's coding unless this was all that the surgeon performed, or the surgeon asked to use Modifier 22 in the operative note due to significant lysis of adhesions, or if the surgeon indicated in the operative note that lysis of adhesions was a significant part of the case.
- If the patient had an ERCP performed intra-operatively, include the ERCP CPT code here. List the ACS surgeon as performing the procedure.

Tab 14 – Intraoperative

185) **Bowel Anastomosis Technique**

Intent: To track the type of bowel anastomosis performed during the surgery to compare 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 an EEA (or circular) stapler and hand-sutured
e. Stapled with a GIA stapler (side-to-side) – "functional end to end"
f. Stapled with a GIA stapler (side-to-side) and hand-sutured
g. Hand-sutured through the abdomen
h. Hand-sutured through the anus
i. Combination stapled with hand-sutured (for multiple anastomoses)
j. No anastomosis was performed

Include: All patients who have a surgical procedure in the operating room or critical care unit.

Exclude: Patients who do not have a surgical procedure.

Notes:

- 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 downstream from the ostomy).
- If more than one anastomosis is performed due to multiple returns to surgery, select the type for the first anastomosis.
- Select option i. "Combination stapled with hand-sutured" only if the patient has more than one anastomosis created.
    - Example: If a patient has one anastomosis created with an EEA stapler and a separate anastomosis created by hand suturing, select "Combination stapled with hand sutured."

186) **Ostomy Performed**

Intent: To track the type of ostomy performed during the surgery to compare 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 or critical care unit.

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.

187) **Associated Hernia Requiring Repair**

Intent: To track hernia repairs 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 or critical care unit.

Exclude: N/A

Note:

- 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 the 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

188) **Established Hernia Care**

Intent**:** To capture instances where the patient has established care with a general surgeon for their hernia, but the hernia repair has not occurred before the patient's current admission.

Definition**:** Identify if a patient had established care with a general surgeon for their hernia before this admission.

Variable Options**:**

a. Yes
b. No

Include: All patients who had surgery for a hernia repair.

Exclude: N/A

Notes:

- Examples of why patients may not be scheduled for an elective hernia repair include but are not limited to high BMI, current tobacco use, cardiac or pulmonary problems, immunosuppression, etc.

189) **Previous Hernia Repair**

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

Definition: The patient had a prior hernia repair surgery involving the ventral or abdominal region at the same site of the current repair.

Variable Options:

a. Yes
b. No

Include: All patients who have a hernia repair.

Exclude: Patients who did not have a hernia repair.

Notes:

190) **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:

191) **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:

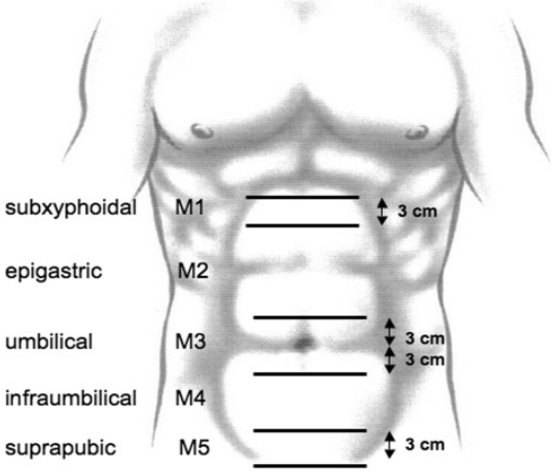
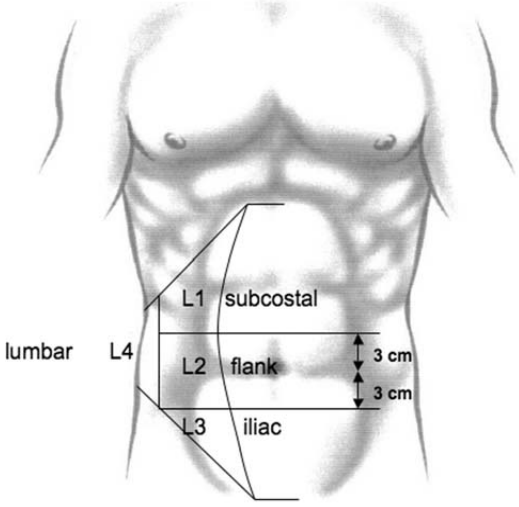
a. Epigastric (M2) – Include Subxiphoid (M1) in Epigastric
b. Umbilical (M3)
c. Infraumbilical (M4)
d. Suprapubic (M5)
e. No Midline Component – Include subcostal (L1), flank (L2), iliac (L3), and lumbar (L4).

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 the identification of the location, see the 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/	

192) **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.

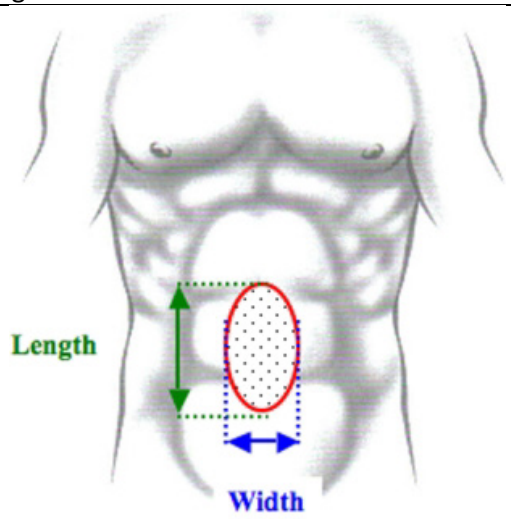
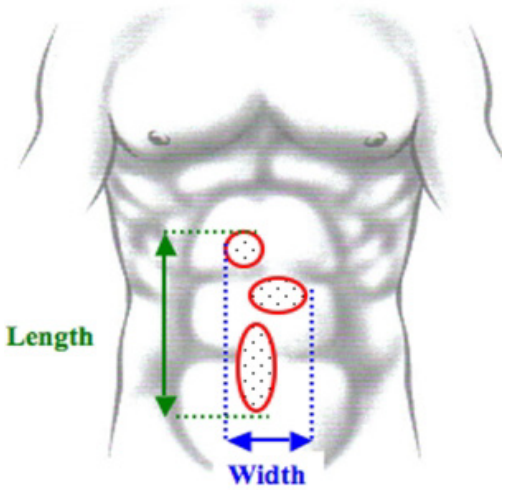
Variable Options: Any number from 0-100 in cm. Can include one digit beyond the decimal point (e.g., 5.3).

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 it 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 the 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/	

193) **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 it 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 the table above for examples. **Exception:** for multiple incisional hernias, report only the largest single-width dimension.

194) **Mesh Location**

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

Definition: Identify the location of mesh placement.

Variable Options:

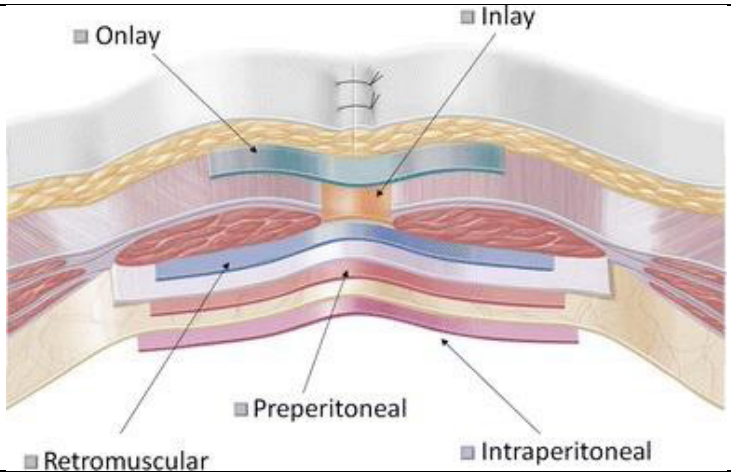
a. Onlay – The mesh is above the abdominal wall muscles/fascia and behind the subcutaneous fat.
b. Inlay – The mesh is between the edges of the fascia or in the hernia defect and fixated to the margins of the defect.
c. Sublay – The mesh is positioned below the rectus (abdominal wall) muscle.
d. Inguinal/Femoral (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 and patients with a hiatal or obturator 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

195) **Sublay Position**

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

Definition: Identify the sublay mesh placement.

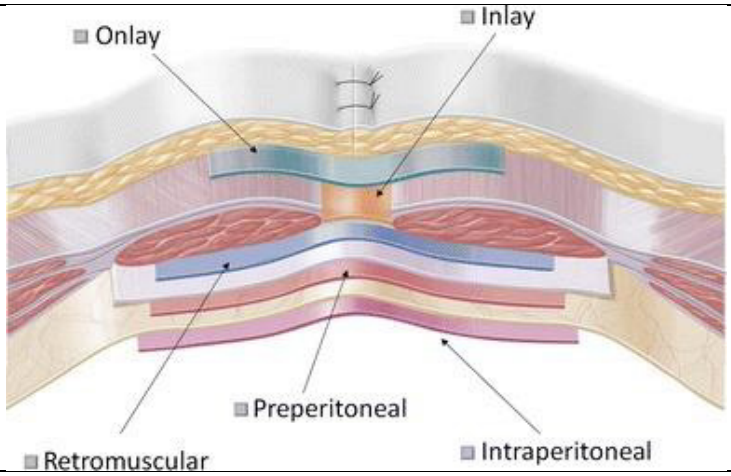
Variable Options:

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

196) **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.

Notes:

- If the actual mesh size is not available, leave it 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 the patient did not have a ventral/incisional or umbilical hernia repair.

197) **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.

Notes:

- If the actual mesh size is not available, leave it 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 the patient did not have a ventral/incisional or umbilical hernia repair.

198) **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)
    - Yes
    - No
b. Synthetic Absorbable (e.g., Vicryl, Bio A, Dexon, Parietex Composite, Parietene, Physiomesh)
    - Yes
    - No
c. Biosynthetic (e.g., Phasix, Proceed, Sepramesh)
    - Yes
    - No
d. Biological (e.g., Strattice, Alloderm, FlexHD)
    - Yes
    - No
e. Other – Before 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.
    - Yes
    - 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.

199) **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.

200) **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.

201) **Myofascial Release**

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

Definition: During this hernia repair, a myofascial release (component separation) was performed. 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.

Notes:

- 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”.
- Subcutaneous flaps and diastasis recti repair are not considered types of myofascial release. Diastasis recti is not a true hernia, it is a gap between the left and right rectus abdominal muscle.

202) **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:

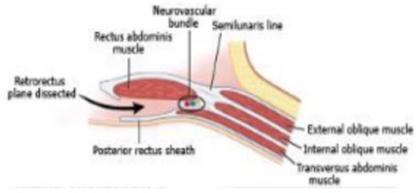
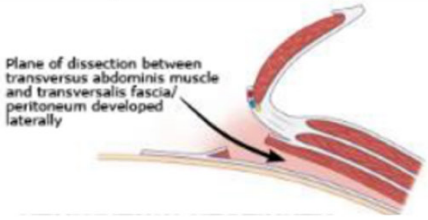
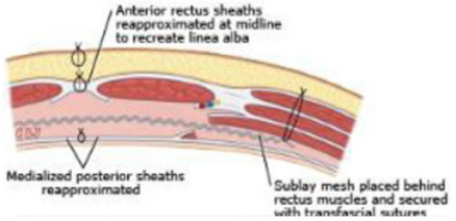
a. Posterior Component – Exposure and division of the transversus abdominis fascia/muscle allowing placement of a mesh (sublay technique) in the preperitoneal /retrorectus/ retromuscular space. It may also be documented as a transversus abdominis release (TAR).
b. Anterior Component – Surgeon creates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

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

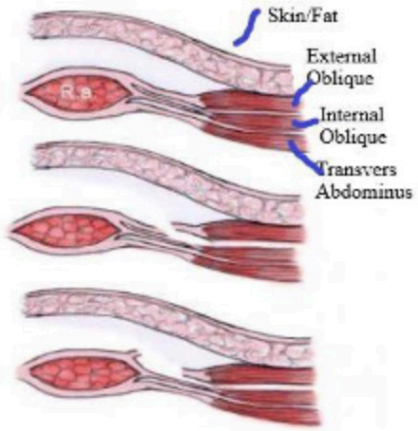
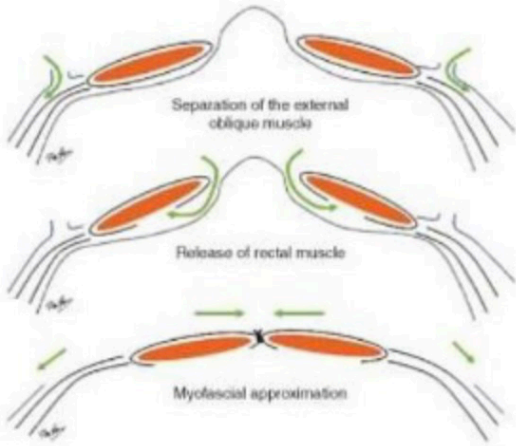
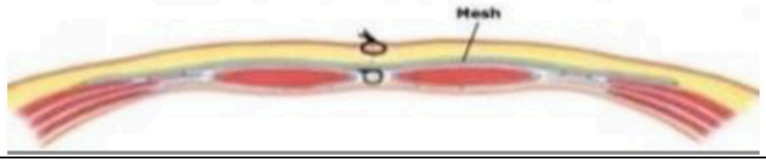
Exclude: Patients who did not have a ventral/incisional or umbilical hernia repair.

Notes:

- Posterior Component:

Rectus plane & transversus abdominis developed	Transverse abdominis muscle/fascia and peritoneum developed	Mesh placement
		

- Anterior Component:

External oblique development	Release of rectus abdominis and approximation of myofascial edges
	
	

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 the first occurrence if there are multiple.

NOTE: If the patient had one or more readmissions after the index admission, capture any NEW occurrence following index hospital discharge ONLY within the corresponding readmission data entry.

For example, a patient has surgery and is readmitted twice within 30 days, once with an anastomotic leak and once with a DVT requiring therapy. You will need to enter three 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 two readmits, one DVT and one anastomotic leak.

For post-operative occurrences, only capture the complications that occurred following surgery performed at your hospital. Do not capture complications from surgery that was performed at another hospital as your center's complication.

203) **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.

Notes:

- 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
- The start time of the blood transfusion must be after the surgery out of room time.

204) **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

Notes:

205) **Anastomotic Leak Intervention**

Intent: To identify the 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

Notes:

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

206) **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, or artificial ventilation) within 30 days after the principal operative procedure or during current admission and within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- 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.

207) **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 principal operative procedure or during current admission and within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

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

208) **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.

Notes:

- This complication refers to a transected or injured common bile duct, which potentially requires additional surgery to fix.

209) **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.

Notes:

- Do not include bile leaks from the ducts of Luschka.

210) **COVID-19 Date (mm/dd/yyyy)**

Intent: To track the prevalence of patients who develop a COVID-19 positive test during their inpatient stay.

Definition: The date the patient has a positive test for COVID-19 during the inpatient stay, beginning on hospital day 3 or after.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

211) **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 a test confirming DVT and 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 during current admission and within 30 days of discharge if medically managed.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Patients with DVT present on arrival.

Notes:

- 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 in basilica, cephalic, hepatic, renal, mesenteric vein, greater or lesser saphenous, or arteries should **not** be included.
- Exclude clots that occur in superficial veins and arteries.
- If DVT is test confirmed and the patient refused therapy, enter the date of the DVT scan.
- If DVT is test confirmed, but the patient has a contraindication to anticoagulation due to bleeding risk documented, enter the date of the DVT scan.
- Enter the appropriate date if there is a clot **in the vein** at the site of an internal jugular (IJ) line or PICC line.
- Examples of tests to confirm include duplex/Doppler/ultrasound, venogram, or CT scan.

212) **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.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Patients presenting to your hospital with an EC fistula that was a complication of surgery performed at an outside hospital.

Notes:

213) **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 or NPO (nothing by mouth) for management.

Definition: The first date of ileus or suspected ileus meeting definition criteria below **and** management (i.e., NG tube or NPO) within 30 days following the principal operative procedure or during current admission and within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include:

- Patients who did not have an NGT during the principal operation and required NGT insertion on any day up to POD 30 for management of post-operative ileus.
- Patients who had a NGT during the principal operation and required reinsertion after removal up to POD 30.
- Patients who had a NGT during the principal operative procedure and it is still in place on POD 4 or longer.
- Patients who had new or continued NPO* status on any day between POD 4 to 30 for management of post-operative ileus. **NPO status means the patient received ice chips only for oral comfort (without sips of water).*

Exclude:

- Patients with NGT or NPO status for reasons other than post-operative ileus (e.g., delivery of medications or nutrition, stroke, aspiration risk, intubation, NPO* status only for another procedure after the principal operative procedure if the NPO status does not last for more than 24 hours).
- Patients with a preoperative history of motility disorders of the intestine or stomach, dysmotility, gastroparesis, or chronic colonic inertia. This history can be found in the preoperative H&P or problem/diagnosis list.

Notes:

- The word “ileus” does not need to be documented to capture this occurrence.

214) **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 current admission and within 30 days following discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Infected pancreas present on hospital arrival.

Notes:

215) **Myocardial Infarction Date (mm/dd/yyyy)**

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

Definition:

An acute myocardial infarction (including NSTEMI type II) must be noted with documentation ECG changes indicative of an acute MI

AND

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

AND

Physician diagnosis of an acute myocardial infarction that occurred subsequent to arrival at your center

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Patients with myocardial infarction present on arrival.

Notes:

- Onset of symptoms began after arrival to your ED/hospital.

216) **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 during the current admission and within 30 days following discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Necrotic pancreas present on hospital arrival.

Notes:

217) **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 principal operative procedure or during the current admission and within 30 days of discharge for medically managed patients. All criteria must be met, but the date recorded should be 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 etc.) • 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

Notes:

- 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). The 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 two days before admission can be used to meet the criteria for pneumonia present on admission. If pneumonia is present on admission, must wait 14 days from the 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 increased density. Documentation that the physician interprets these Radiology results as indicative of pneumonia and antibiotics are administered can be used to meet Radiology criteria.

218) **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 principal operative procedure or during the current admission and within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Patients with pulmonary embolism present on arrival.

Notes:

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

Intent: To track the prevalence of patients with 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.

Notes:

- When a stone is not visualized during secondary ERCP, but the major papilla is inflamed or labs indicate that the stone passed before ERCP with supporting documentation in the chart, you may count this as a retained CBD stone.

220) **Sepsis Date (mm/dd/yyyy)**

Intent: To track the prevalence of patients who develop sepsis after surgery or during hospitalization for non-surgical patients.

Definition: The patient has sepsis defined by having a new suspected/confirmed infection in criteria A **AND** one or more acute organ dysfunction listed among criteria B within the appropriate time frame.

- *Operative patients this admission*: Documentation of acute organ dysfunction criteria within the appropriate 5-day window period surrounding a new infection source within 30 days post-op.
- *Non-operative patients this admission*: Documentation of acute organ dysfunction and new infection must be met on hospital day #3 or after within the appropriate 5-day window period surrounding the new infection source.

A. <u>New Suspected/Confirmed Infection</u>

Infection sources may include but not limited to: acute appendicitis, acute cholecystitis, acute abdominal infection, acute diverticulitis, organ perforation/perforated viscus, abscess, positive cultures, anastomotic leak, gangrene/necrosis, "suspected/possible infection from xx", physician diagnosis of infection or meets MACS definition of infection (SSI, UTI, PNA), empyema, meningitis, skin/soft tissue infection, bone/joint infection, wound infection, bloodstream catheter infection, endocarditis, implantable device infection, acute sinus infection.

AND

B. <u>Acute Organ Dysfunction</u> (at least 1 of the following criteria met within the time period 2 calendar days before or 2 calendar days after the infection source is suspected or confirmed):

1. Increased respiratory support ≥ 4L (35%) oxygen for >2 hours
    - Note: this does not need to be consecutive hours
    - **AND** no ICD10 for chronic respiratory failure with hypoxemia (J96.11 or J96.21) coded on admission and no history of home oxygen use
2. Serum Creatinine ≥ 1.2 **AND** 50% increase from baseline (lowest value during hospitalization) **AND** no ICD10 for end-stage renal dysfunction (N18.6) coded on admission
3. Platelet count < 100 K/µL **AND** > 50% decline in platelets from baseline (highest value during hospitalization)
4. Total bilirubin ≥ 2.0 mg/dL **AND** doubling of total bilirubin from baseline (lowest value during hospitalization).
    - Note: Total bilirubin criteria cannot be used for patients with acute gallbladder disease.
5. Lactate ≥ 2.0 mmol/L

6. Treatment with any of the following intravenous vasopressors (at any dose): Angiotensin II, Dopamine, Norepinephrine, Epinephrine, Phenylephrine, or Vasopressin outside of the operating room.
7. Documentation of mental status alteration, defined as deviation from the patient's baseline cognitive status.
    - Include: confusion, lethargy, reports that the patient is acting out of usual character, unresponsiveness, somnolence, comatose state, encephalopathy
    - Please also include Nursing documentation of altered mental status.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- 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 an 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 sepsis was assigned pre-op.
- Same infection source and assigned sepsis pre-op, can't assign sepsis again until at least post-op day 7.
- For surgical patients, acute organ dysfunction (criteria B) for sepsis cannot be met intra-operatively.
- If an infection source is identified intra-op, but the patient did not have acute organ dysfunction pre-op, then sepsis can be assigned as an occurrence if acute organ dysfunction occurs on post-op day 0, post-op day 1, or post-op day 2 (3-day calendar window).

Window Periods for Surgical Patients

The date the new infection source is suspected or confirmed is the center of a window period extending both 2 days before and 2 days after for capture of acute organ dysfunction criteria.

Table 1: Window period example for new suspected/confirmed infection and post-op and organ dysfunction

Hospital Day No.	1 ACS Index Surgery	2	3	4	5	6	7	8	9
New Suspected or Confirmed Infection				**X**					
Window Period for Organ Dysfunction		**Window Period**							

- For surgical patients, if both sepsis criteria are met within a 3-day calendar window post-op**,** then you can assign sepsis as an occurrence.
- The occurrence date for sepsis would be the date the patient met the criteria for acute organ dysfunction within the 3-day calendar window before or after the new infection source was identified.

Table 2: Window period for infection source identified intra-operatively, but not meeting criteria for acute organ dysfunction until post-operatively

Hospital Day No.	1 ACS Index Surgery	2 POD #1	3 POD #2	4
New Infection Source	**X (Intra-op)**			
Window Period for Organ Dysfunction	**Window Period (Post-op Day 0 through Post-op Day #2)**			

- For surgical patients, when the infection source is identified intra-operatively, and the patient does not meet acute organ dysfunction criteria pre-op, then you can assign sepsis as an occurrence if the patient meets criteria B on post-op day #0 or the two calendar days after surgery.

Window Period for Non-surgical Patients

The date the new infection source is suspected or confirmed is the center of a window period extending both 2 days before and 2 days after for capture of acute organ dysfunction criteria. The new infection source (criteria A) and organ dysfunction (criteria B) must be met on or after hospital day #3.

Table 3 Example: For non-surgical patients, both criteria for sepsis must be met within a five-day calendar window surrounding the new infection source on hospital day #3 or after to be considered sepsis as an occurrence.

Hospital Day No.	1	2	3	4	5	6	7	8
New Infection Source						**X**		
Window Period for Organ Dysfunction				**Window Period**				

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.

221) **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.
- Organisms isolated from a culture (aseptically obtained) of the deep incision site fluid or tissue.
- 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 the 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.

Notes:

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

SSI Reference:

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

CDC website: National Healthcare Safety Network, Surgical Site Infection Event (SSI). See Table 1. Surgical Site Infection Criteria, https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscssicurrent.pdf

222) **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 body deeper than the fascia/muscle layers, that was opened or manipulated during the operative procedure (e.g., organ, spaces) **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 other evidence of infection involving the organ/space that is detected upon direct examination, reoperation, histopathologic exam, or imaging test suggestive of infection.
- 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.

Notes:

SSI Reference:

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

CDC website: National Healthcare Safety Network, Surgical Site Infection Event (SSI). See Table 1. Surgical Site Infection Criteria, https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscssicurrent.pdf

223) **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 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 the 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.

Notes:

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

SSI Reference:

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

CDC website: National Healthcare Safety Network, Surgical Site Infection Event (SSI). See Table 1. Surgical Site Infection Criteria, https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscssicurrent.pdf

224) **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 principal operative procedure or during the current admission and within 30 days of discharge for medically managed patients.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: Exclude patients with stroke/CVA present on arrival.

Notes:

225) **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 two consecutive days during this admission (day 3 is the first date they qualify).

OR

an indwelling urinary catheter was in place for at least two 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 (>38 ^{O} C or 100.4 ^{O} 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 two consecutive days **OR** patients who have an IUC for two consecutive days, but it was removed greater than one day before occurrence.

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

Notes:

- A catheter in place for any portion of the calendar day qualifies as a day.

- CAUTI occurrence can be included for up to 30 days following principal operative procedure for surgical patients and during admission and within 30 days after discharge for medically managed patients if the catheter remains 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 two days before admission can be used to meet criteria for UTI present on admission. If UTI is present on admission, must wait 14 days from the 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, 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 one full calendar day, the 2-day count to qualify for a CAUTI is restarted.
- Candida, yeast, mold, dimorphic fungi, or parasites cannot be used to meet the urine culture criteria of a 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

226) **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 two 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 any age patient • 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

Notes:

- A catheter in place for any portion of the calendar day qualifies as a day.
- Non-CAUTI occurrence can be included for up to 30 days following principal operative procedure for surgical patients and during admission and within 30 days after discharge for medically managed patients.
- 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 two days before admission can be used to meet criteria for UTI present on admission. If UTI is present on admission, must wait 14 days from the first criteria date (admission date or first day after date) to look for a repeat (second) occurrence of UTI that could be included.

- Urgency, frequency, and dysuria cannot be used if the patient has a catheter in place.
- Candida, yeast, mold, dimorphic fungi, or parasites cannot be used to meet the urine culture criteria of the 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

227) **Wound Disruption Date (mm/dd/yyyy)**

Intent: To track the prevalence of post-operative patients who develop significant wound dehiscence that requires a return to the operating room during current hospital admission or readmission.

Definition: The date a post-operative patient developed wound dehiscence requiring a 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.

Notes:

- Wound dehiscence date can be captured at any time following surgery.
- Wound dehiscence can be captured on a readmission case.

Tab 18 – Opioids

NOTE: The intent of this section is to calculate the total morphine milligram equivalents (MME) of the prescribed opioid medication provided at hospital discharge.

228) **Tablet Type 1**

Definition: The primary opioid tablet that the patient was prescribed for pain at hospital discharge.

Variable Options:

a. None
b. Buprenorphine
c. Codeine
d. Dihydrocodeine
e. Fentanyl
f. Hydrocodone
g. Hydromorphone
h. Meperidine
i. Methadone
j. Morphine
k. Oxycodone
l. Pentazocine
m. Tapentadol
n. Tramadol
o. Other

Include: All

Exclude: N/A

Notes:

- Drug Search
- Report capsules in the tablet data fields.
- Only report the opioid component of the prescription (e.g., oxycodone/acetaminophen 5 mg/325 mg, report oxycodone 5mg).

229) **Tablet Type 2**

Definition: Another opioid tablet that the patient was prescribed for pain at hospital discharge.

Variable Options:

a. None
b. Buprenorphine
c. Codeine
d. Dihydrocodeine
e. Fentanyl
f. Hydrocodone
g. Hydromorphone
h. Meperidine
i. Methadone
j. Morphine
k. Oxycodone
l. Pentazocine
m. Tapentadol
n. Tramadol
o. Other

Include: All

Exclude: N/A

Notes:

- Drug Search
- Report capsules in the tablet data fields.
- Only report the opioid component of the prescription (e.g., oxycodone/acetaminophen 5 mg/325 mg, report oxycodone 5mg).

230) **Solution Type 1**

Definition: The type of opioid solution prescribed at discharge.

Variable Options:

a. None
b. Buprenorphine
c. Codeine
d. Dihydrocodeine
e. Fentanyl
f. Hydrocodone
g. Hydromorphone
h. Meperidine
i. Methadone
j. Morphine
k. Oxycodone
l. Pentazocine
m. Tapentadol
n. Tramadol
o. Other

Include: All

Exclude: N/A

Notes:

- Drug Search
- Report cartridge, concentrate, elixir, liquid, pen injector, pump reservoir, syringe, and other similar solution forms prescribed units/mL in the solution data fields.
- Only report the opioid component of the prescription (e.g., oxycodone/acetaminophen 5 mg/325 mg per 5 mL, report oxycodone).

231) **Other Type 1**

Definition: The type of opioid other prescribed at discharge.

Variable Options:

a. None
b. Buprenorphine
c. Codeine
d. Dihydrocodeine
e. Fentanyl
f. Hydrocodone
g. Hydromorphone
h. Meperidine
i. Methadone
j. Morphine
k. Oxycodone
l. Pentazocine
m. Tapentadol
n. Tramadol
o. Other

Include: All

Exclude: N/A

Notes:

- Drug Search
- Only report the opioid component of the prescription.

232) **Strength**

Definition: The strength of opioids prescribed at discharge.

Variable Options: Relevant value for the data element.

Include: All

Exclude: N/A

Notes:

- Only report the opioid component of the prescription (e.g., oxycodone/acetaminophen 5 mg/325 mg, report the number 5).
- Round to the tenth decimal place where applicable (e.g., strength = 8.25, report 8.3)

233) **Units**

Definition: The drug units of opioids prescribed at discharge.

Variable Options:

a. Milligrams (mg)
b. Micrograms (mcg)
c. Grams (g)
d. Percent (%)
e. Other

Include: All

Exclude: N/A

Notes:

- Drug Search
- Only report the opioid component of the prescription.

234) **Solution 1 Milliliters (mL)**

Intent: To determine the opioid solution dose prescribed at discharge.

Definition: The milliliters of solution (mL) of opioid prescribed at discharge.

Variable Options: Relevant value for data element

Include: All

Exclude: N/A

Notes:

- Drug Search
- Example 1: acetaminophen/codeine solution 120 mg/12 mg per 5 mL is prescribed.
    - Report the numeric value 5.
    - Round to the tenth decimal place where applicable (e.g., mL = 8.25, report 8.3)

235) **Other 1 Form**

Definition: The form of “other” opioids prescribed at discharge.

Variable Options:

a. None
b. Film
c. Lozenge
d. Nasal spray
e. Oral spray
f. Patch
g. Powder
h. Suppository
i. Other

Include: All

Exclude: N/A

Notes:

- Drug Search

236) **Maximum Per Dose**

Intent: To determine the maximum allowable dose of opioid that the patient can take for one dose.

Definition: The maximum per dose opioid prescribed at discharge.

Variable Options: Relevant value for the data element.

Include: All

Exclude: N/A

Notes:

- Drug Search
- Example 1 (Tablets): oxycodone 5 mg 1-2 tabs PO Q 4-6 h prn pain is prescribed.
    - The patient can take a maximum amount of 2 tabs for each dose.
    - Report the numeric value 2.
- Example 2 (Tablets): oxycodone 10 mg 1 tab PO Q 12 h prn pain is prescribed.
    - The patient can take a maximum amount of 1 tab for each dose.
    - Report the numeric value 1.
- Example 3 (Solution): acetaminophen/codeine solution 120 mg/12 mg per 5 mL take 5-10 mL Q 6 h prn pain.
    - The patient can take a maximum amount of 10 mL for each dose.
    - Report the numeric value 10.
- Example 4 (Other): fentanyl transdermal 50 mcg/h one patch Q 72 h is prescribed.
    - The patient can apply one patch for each dose.
    - Report the numeric value 1.
- Round to the tenth decimal place where applicable (e.g., mL = 8.25, report 8.3)

237) **Maximum Frequency Per Day**

Intent: To determine how many times per 24-hour period the patient may take the opioid prescribed at discharge.

Definition: The maximum frequency of opioids per day prescribed at discharge.

Variable Options: Relevant value for the data element.

Include: All

Exclude: N/A

Notes:

- Example 1 (Tablets): oxycodone 5 mg 1-2 tabs PO Q 4-6 h prn pain is prescribed.
    - The patient can take a maximum number of doses per day of 6.
    - Report the numeric value 6.
- Example 2 (Tablets): oxycodone 10 mg 1 tab PO Q 12 h prn pain is prescribed.
    - The patient can take a maximum number of doses per day of 2.
    - Report the numeric value 2.
- Example 3 (Solution): acetaminophen/codeine solution 120 mg/12 mg per 5 mL take 5-10 mL Q 6 h prn pain.
    - The patient can take a maximum number of doses per day of 4.
    - Report the numeric value 4.
- Example 4 (Other): fentanyl transdermal 50 mcg/h one patch Q 72 h is prescribed.
    - The patient can wear a maximum number of patches of 1 per day.
    - Report the numeric value 1.
- Round to the tenth decimal place where applicable (e.g., frequency = 2.25, report 2.3)

238) **Quantity**

Intent: To determine the total amount of opioids prescribed at discharge.

Definition: The number of opioids prescribed at discharge.

Variable Options: Relevant value for the data element.

Include: All

Exclude: N/A

Notes:

- Drug Search
- For tablets, report the total number of tablets prescribed.
- For solution, report the total milliliters (mL) of solution prescribed.
- For other, report the total number of units (e.g., patches, lozenges, etc.) prescribed.
- Patients discharged to acute rehabilitation or facility may have an opioid prescription listed on their discharge summary, but no quantity listed because the providers at the facility will continue to dispense. For these scenarios, report the opioid listed with zero for the quantity.
- Round to the tenth decimal place where applicable (e.g., quantity = 8.25, report 8.3)

239) **Inpatient Opioid Use (24 Hours)**

Intent: To determine if the patient has taken an opioid medication within 24 hours before discharge from the hospital.

Definition: The inpatient hospital chart has record of the patient being administered an opioid medication within the 24 hours before discharge.

Variable Options:

i. Yes
ii. No

Include: All

Exclude: N/A

Notes:

- Drug Search

Tab 19 – Discharge

240) **Hospital Discharge Date (mm/dd/yyyy)**

Intent: To capture the date that the patient leaves the current acute care hospital to track 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

Notes:

- 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 transfer date if a discharge date is not available.

241) **Hospital Discharge Time (Military Time 00:00)**

Intent: To capture the time that the patient leaves the current acute care hospital to track 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

Notes:

- 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 transfer time if a discharge time is not available.

242) **Discharge Status**

Intent: To capture survival to discharge.

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

Variable Options:

a. Alive
b. Dead

Include: All

Exclude: N/A

Notes:

243) **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 - e.g., visiting nurse (wound care, home infusion), PT/OT arranged
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

Notes:

- Use discharge summary and case management notes to determine the most accurate discharge disposition.

244) **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 within 30 days of discharge from their last hospitalization.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: None

Notes:

- Leave blank if the patient does not return.
- Leave blank if the patient returns to the ED and is readmitted (readmissions will have a new MACS case).
- If there are greater than three ED visits following hospital discharge, enter the first three ED visits.

245) **Death Date Within 30 days Post Discharge (mm/dd/yyyy)**

Intent: To identify patients who died intraoperatively or within 30 days after hospital discharge.

Definition: Note the date of death if a patient dies intraoperative or within 30 days after hospital discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All patients who die within 30 days after hospital discharge.

Exclude: Patients who do not die within 30 days of hospital discharge.

Notes:

246) **Surgery Clinic Follow Up Date (mm/dd/yyyy)**

Intent: To identify if surgery saw the patient for follow up in clinic within 30 days following hospital discharge.

Definition: Capture the date of surgery clinic follow up within 30 days of hospital discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- If the patient does not have a surgery clinic follow-up within 30 days of discharge, then enter the discharge date for the follow-up date.
- Surgery clinic visits conducted virtually or by telephone may count as a clinic visit.
- Surgery clinic visits with a resident or advanced practice provider (NP/PA) may count as a clinic visit.
- Telephone calls to the surgery clinic nurse that are not scheduled clinic visits do not count.

247) **PCP Clinic Follow Up Date (mm/dd/yyyy)**

Intent: To identify if a PCP saw the patient for follow up in clinic within 30 days following hospital discharge.

Definition: Capture the date of PCP clinic follow up within 30 days of hospital discharge.

Variable Options: Date in mm/dd/yyyy format

Include: All

Exclude: N/A

Notes:

- If the patient does not have a PCP clinic follow-up within 30 days of discharge, then leave this blank.
- PCP clinic visits conducted virtually or by telephone may count as a clinic visit.
- PCP clinic visits with a resident or advanced practice provider (NP/PA) may count as a clinic visit.
- Telephone calls to the PCP clinic nurse that are not scheduled clinic visits do not count.

248) **Comments**

Intent: Provide a free text space to collect 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		
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
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