MAY 5, 2020

## Data Manager Quick Links

New Data Warehouse - Starting January 1, 2020 – Important Information for ALL SITES!

Database Transition Resources

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Data Manager Education

Data Collection Resources (version specific abstraction documents)

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STS National Database News - Publication for STS Data Managers

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# GENERAL THORACIC SURGERY DATABASE TRAINING MANUAL

VERSION 2.41

STS National Database
Using data to drive quality

General Thoracic Surgery Database

V2.41 Training Manual

May 5, 2020

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## Case Examples

The STS General Thoracic Registry version 2.41 requires submission of all lung resections for primary lung cancer and all esophageal resections for primary esophageal cancer. Lung and esophageal resections for primary cancer are analyzed including national outcomes for benchmarking, risk adjusted outcomes, and star rating. Participants in the General Thoracic Registry may choose to submit Thymus/Mediastinal Mass Resection, Tracheal Resection, and Hiatal Hernia/GERD cases. These case types are optional modules for submission to the registry and will be analyzed in the national report if submitted. All other case types are not required for collection or submission. They will not be analyzed in the aggregate report if submitted.

Case #1:
Patient has nodule on CT scan and is also worked up with a PET scan. Surgeon thinks it could be cancer so lung resection is completed and path comes back as lung cancer. This case is required for the registry. Enter this case as a lobectomy for primary lung cancer including the clinical and path staging.

Case #2:
Same as above but path comes back as hamartoma. This case is not required for submission to the registry because resection ultimately was not for primary lung cancer. This case will not be analyzed if submitted.

Case #3
Patient worked up for presumed lung cancer and taken to OR for planned wedge resection followed by lobectomy if frozen section shows cancer. Frozen section comes back as granuloma so surgery ends at wedge resection. This case is not required for submission because resection ultimately was not for lung cancer. This case would not be analyzed if submitted.

Case #4
Patient presents to hospital with pneumonia. CT shows necrotic fluid suspicious for lung abscess in LLL. Patient taken to OR to drain effusion and wedge resection of abscess. Completion lobectomy was then undertaken because the lung was not salvageable. There was never suspected cancer.
This case is not required for submission because resection ultimately was not for lung cancer. This case would not be analyzed if submitted.

Case #5
Patient with history of breast cancer and previous mets to the lung removed via wedge and presents now with a new nodule. Surgeon assumes it's another met. Taken to OR for therapeutic wedge resection. Final pathology returns as early stage primary lung cancer.
This case is required for the registry. Enter this case as a wedge resection for primary lung cancer including the clinical and pathological staging. This case will be analyzed.

Case #6
Patient presents with empyema and undergoes decortication.
This case is not required for submission to the registry because it is not a lung resection for primary lung cancer. This case will not be analyzed if submitted.

Case #7
Patient presents with mediastinal mass. Ultimately undergoes thymectomy. Pathology returns with stage II thymoma.
This case is an optional submission using the Thymus/Mediastinal Mass module. This case will be analyzed if submitted.

## Definitions

- "No" should be indicated if there is documentation that the patient does not have Pulmonary Hypertension.
- "Unknown" should be indicated if it is not known if the patient has Pulmonary Hypertension or if testing has not been performed.

## Risk Model

**The risk model is an all or none model. Within the risk model complications are not tallied or delineated. The patient either has complications or they do not. Therefore, all complications / post-operative events are to be captured.**

## Demographics

---

**SeqNo:** 10
**Long Name:** Operations Table Record Identifier
**Short Name:** RecordID
**Definition:** An arbitrary, unique value generated by the software that permanently identifies each record in the participant's database (note that unlike the PatID value, this does not identify the individual patient). The value of the identifier is a combination of a code assigned to the software developer by the STS, and a value generated by the software to create a unique value. Once assigned to a record, this value can never be changed or reused. The data warehouse will use this value to communicate issues about individual records with the participant. It may also be used by the data warehouse to link this record to other clinical data.

**Intent/Clarification:** A record should be initiated for inpatient and outpatient thoracic procedures on every visit to the operating room (includes Endoscopy Suite or Outpatient Surgical Center) whether planned or unplanned.

---

**SeqNo**: 20
**Long Name:** Procedures Table Record Identifier
**Short Name:** RecordID
**Definition:** This field is the foreign key that links this record with the associated records in the "Operations" table.

---

**SeqNo:** 30
**Long Name:** Software Vendor's Identification
**Short Name:** VendorID
**Definition:** Software vendor's identification assigned by the STS.

---

**SeqNo:** 40
**Long Name:** Vendor's Software Version Number
**Short Name:** SoftVrsn
**Definition:** Vendor's software product version number identifying the software which created this record. Vendor controls the value in this field. Version passing certification/harvest testing will be noted at the data warehouse.

---

**SeqNo:** 50
**Long Name:** Version Of STS Data Specification
**Short Name**: DataVrsn
**Definition:** Version number of the STS Data Specifications/Dictionary, to which the record conforms. The value will identify which fields should have data, and what are the valid data values for those fields. It must

be the version implemented in the software at the time the record was created. The value must be entered into the record automatically by the software.

---

**SeqNo**: 60
**Long Name:** Participant ID
**Short Name:** ParticID
**Definition:** Participant ID is a unique number assigned to each database Participant by the STS. A database Participant is defined as one entity that signs a Participation Agreement with the STS, submits one data file to the harvest, and gets back one report on their data. The ParticipantID must be entered into each record.

**Intent/Clarification:** Each participant's data, if submitted to the data warehouse, must be in one data file. If one participant keeps data in more than one file (e.g. at two sites), the participant must combine them back into one file for data submission. If two or more participants share single purchased software and enter cases into one database, the data must be extracted into two different files, one for each participant ID, with each record having the correct participant ID number.

---

**SeqNo:** 70
**Long Name:** Demographics Table Data Version
**Short Name:** DemogDataVrsn
**Definition:** Version number of the STS Data Specifications/Dictionary, to which the Demographics record conforms. The value will identify which fields should have data, and what are the valid data for those fields. It must be the version implemented in the software at the time the record was created. The value must be entered into the record automatically by the software. Note that the data version of the demographics record does not necessarily need to match the data version of all of the associated operation records for that patient. This is because new data versions might be implemented in the software and used for the creation of operation records after a demographics record has been created for a patient.

---

**SeqNo:** 80
**Long Name:** Demographics Table Patient Identifier
**Short Name:** PatID
**Definition:** An arbitrary value that uniquely and permanently identifies each patient. The value of the identifier is a combination of a code assigned to the software developer by the STS, and a value generated by the software to create a unique value. The value in this field cannot be a value that would identify the patient outside of the database (such as Medical Record Number or Social Security Number). Once a value has been assigned to a patient, it can never be changed or reused. This field is the primary key that links this record with the associated records in the "Operations" table.

---

**SeqNo:** 85
**Long Name:** Operations Table Patient Identifier
**Short Name:** PatID
**Definition:** The foreign key that links this record with the associated record in the "Demographics" table.

---

**SeqNo:** 90
**Long Name:** Medical Record #
**Short Name:** MedRecN
**Definition:** Indicate the patient's medical record number at the hospital where surgery occurred. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:** ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo:** 100
**Long Name:** Patient's First Name
**Short Name:** PatFName
**Definition:** Indicate the patient's first name documented in the medical record. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:** ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo:** 110
**Long Name:** Patient Middle Name
**Short Name:** PatMName
**Definition:** Indicate the patient's middle name as documented in the medical record. Leave "blank" if no middle name. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:** ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo:** 120
**Long Name:** Patient's Last Name
**Short Name:** PatLName
**Definition:** Indicate the patient's last name documented in the medical record. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:** ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo:** 130
**Long Name:** Social Security Number
**Short Name:** SSN
**Definition:** Indicate the patient's Social Security Number (SSN). Although this is the Social Security Number in the USA, other countries may have a different National Patient Identifier Number. For example in Canada, this would be the Social Insurance Number. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:** ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo:** 140
**Long Name:** Patient Participating In STS-Related Clinical Trial
**Short Name:** ClinTrial
**Definition:** Indicate which, if any, STS-related clinical trial in which the patient is participating. The STS will assign a code to each clinical trial as they begin collecting data.

**Intent/Clarification:** This applies only to STS trials. The instructions will be posted here when trials are available. There are currently no trials underway.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | None |
| 2 | Trial 1 |
| 3 | Trial 2 |
| 4 | Trial 3 |
| 5 | Trial 4 |
| 6 | Trial 5 |
| 7 | Trial 6 |

---

**SeqNo:** 150
**Long Name:** Patient Participating In STS-Related Clinical Trial - Patient ID
**Short Name:** ClinTrialPatID
**Definition:** Indicate the patient identifier used to identify the patient in the clinical trial.

---

**SeqNo:** 160
**Long Name:** Date Of Birth
**Short Name:** DOB
**Definition:** Indicate the patient's date of birth using 4-digit format for year. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:** ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo:** 170

**Long Name:** Age At Time Of Surgery

**Short Name:** Age

**Definition:** Indicate the patient's age in years, at time of surgery. This should be calculated from the date of birth and the date of surgery, according to the convention used in the USA (the number of birth date anniversaries reached by the date of surgery). If patient is less than one year old, enter the value 1.

**Intent/Clarification:** Age is needed for risk models. There is no age limit in the GTSD; include all patients.

---

**SeqNo:** 180
**Long Name:** Postal Code
**Short Name**: PostalCode
**Definition:** Indicate the ZIP Code of the patient's residence. Outside the USA, this data may be known by other names such as Postal Code (needing 6 characters). Software should allow sites to collect at least up to 10 characters to allow for Zip+4 values. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification**: ***This field is <u>not</u> required for record inclusion.***

---

**SeqNo** 190
**Long Name:** Gender
**Short Name:** Gender
**Definition:** Indicate the patient's gender at birth as either male or female.

**Intent/Clarification:** Patients who have undergone gender reassignment surgery maintain the risk associated with their chromosomal gender. This field is included in risk models.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Male |
| 2 | Female |

---

**SeqNo:** 200
**Long Name:** Race Documented
**Short Name:** RaceDocumented
**Definition:** Indicate whether race is documented.

**Intent/Clarification:** Race should be self – reported by the patient or family.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Patient declined to disclose |

**SeqNo:** 210

**Long Name:** Race - White or Caucasian

**Short Name:** RaceCaucasian

**Definition:** Indicate whether the patient's race, as determined by the patient or family, includes Caucasian. This includes a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting.

(www.whitehouse.gov/omb/fedreg/1997standards.html)

**Intent/Clarification:** The Census Bureau collects race data in accordance with guidelines provided by the U.S. Office of Management and Budget and these data are based on self-identification. The racial categories included in the census form generally reflect a social definition of race recognized in this country, and are 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 socio-cultural groups.

People may choose to report more than one race to indicate their racial mixture, Such as “American Indian and White.” People who identify their origin (ETHNICITY) as Hispanic, Latino or Spanish may be of any race. In addition, it is recognized that the categories of the race item include both racial and national origin and socio-cultural groups. You may choose more than one race category.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 220

**Long Name:** Race - Black or African American

**Short Name:** RaceBlack

**Definition:** Indicate whether the patient's race, as determined by the patient or family, includes Black / African American. This includes a person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (www.whitehouse.gov/omb/fedreg/1997standards.html)

**Intent/Clarification:** This includes a person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."

Reference: www.whitehouse.gov/omb/fedreg/1997standards.html.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 230

**Long Name:** Race – Asian

**Short Name:** RaceAsian

**Definition:** Indicate whether the patient's race, as determined by the patient or family, includes Asian. This includes 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.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (Reference: www.whitehouse.gov/omb/fedreg/1997standards.html)

**Intent/Clarification:**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 240

**Long Name:** Race - American Indian or Alaskan Native

**Short Name:** RaceNativeAm

**Definition:** Indicate whether the patient's race, as determined by the patient or family, includes American Indian / Alaskan Native. This includes 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.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (www.whitehouse.gov/omb/fedreg/1997standards.html)

**Intent/Clarification:** American Indian or Alaska Native" refers to 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. This category includes people who indicated their race(s) as "American Indian or Alaska Native" or reported their enrolled or principal tribe, such as Navajo, Blackfeet, Inupiat, Yup'ik, or Central American Indian groups or South American Indian groups. This includes all in North American native peoples such as American Indian/Alaskan Native, Inuit.
[The 2010 Census Redistricting Data (Public Law 94-171) Summary File]

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 250
**Long Name:** Race - Native Hawaiian or Pacific Islander
**Short Name:** RacNativePacific
**Definition:** Indicate whether the patient's race, as determined by the patient or family, includes Native Hawaiian / Pacific Islander. This includes a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting.
( www.whitehouse.gov/omb/fedreg/1997standards.html)

**Intent/Clarification:** "Native Hawaiian or Other Pacific Islander" refers to a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. It includes people who indicated their race(s) as "Pacific Islander" or reported entries such as "Native Hawaiian", "Guamanian or Chamorro", "Samoan", and "Other Pacific Islander" or provided other detailed Pacific Islander responses. [The 2010 Census Redistricting Data (Public Law 94-171) Summary File]

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 260
**Long Name:** Race Other
**Short Name**: RaceOther

**Definition:** Indicate whether the patient's race, as determined by the patient or family, includes some other race or mixture of races not otherwise indicated.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting.

(www.whitehouse.gov/omb/fedreg/1997standards.html)

**Intent/Clarification:** "Some Other Race" includes all other responses not included in the White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander race categories described above.

[The 2010 Census Redistricting Data (Public Law 94-171) Summary File]

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 270
**Long Name:** Hispanic or Latino Ethnicity
**Short Name:** Ethnicity
**Definition:** Indicate if the patient is of Hispanic or Latino ethnicity as determined by the patient / family. Hispanic or Latino ethnicity includes patient report of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

**Intent/Clarification:** People who identify their origin as Hispanic, Latino or Spanish **may be of any race**. [The 2010 Census Redistricting Data (Public Law 94-171) Summary File]

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not documented |

---

## Admission

**SeqNo:** 280
**Long Name:** Admission Status

**Short Name**: AdmissionStat
**Definition:** Indicate whether the procedure was an Inpatient or Outpatient / Observation procedure.

**Intent/Clarification:** This field is required for Record Inclusion. If missing data, the entire record will be excluded from the analysis. Outpatient/Observation should be selected if the operation was performed as an ambulatory procedure or if it included a period of overnight observation.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Inpatient |
| 2 | Outpatient / Observation |

---

**SeqNo:** 290
**Long Name:** Admission Date
**Short Name:** AdmitDt
**Definition:** Indicate the date of admission. For those patients who originally enter the hospital in an out-patient capacity, the admit date is the date the patient's status changes to in-patient.

**Intent/Clarification:** For purposes of this data definition, Outpatient and Observation status are the same. Enter INPATIENT admit date. This is a child field of admission status so if patient was never admitted as an inpatient you will not be asked to provide a date.

---

**SeqNo:** 300
**Long Name:** Primary Payor
**Short Name:** PayorPrim
**Definition:** Indicate the primary insurance payor for this admission.

**Intent/Clarification:** Government insurance refers to patients who are covered by government-reimbursed care. This includes Medicare, Medicaid, Military Health Care (e.g. TriCare), State-Specific Plan, and Indian Health Service.
CHIP (Children's Health Insurance Plan), High Risk Pools Local Government Health Insurance Plan (LGHIP), state or federal prisoners.
Blue Cross Federal Government is coded as Commercial insurance.
If a patient is in an HMO, choose only HMO, you do not need to also choose commercial.
Code Medicare Replacement plans as Medicare as primary, Commercial as secondary.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | None / self |
| 2 | Medicare |
| 3 | Medicaid |

| | |
|---|---|
| 4 | Military Health |
| 5 | Indian Health Service |
| 6 | Correctional Facility |
| 7 | State Specific Plan |
| 8 | Other Government Insurance |
| 9 | Commercial Health Insurance |
| 10 | Health Maintenance Organization |
| 11 | Non-U.S. Plan |

---

**SeqNo:** 310
**Long Name:** Primary Payor Medicare Fee for Service
**Short Name:** PrimMCareFFS
**Definition:** Indicate whether the patient is covered by Medicare Fee For Service (Part B).

**Intent/Clarification:** The Social Security Website at www.socialsecurity.gov has a list explaining what the letters behind the Medicare claim # stand for. Those letters do not tell you whether they have Part B/Fee for service. It is the relationship of the cardholder to the Medicare/SSN #. For example, B stands for "Aged wife, 62 or older". The A would stand for "Primary claimant=the wage earner". D1 is for an "Aged widower, age 60 or over".

This is used for MIPS (formerly PQRS). Check with your hospital billing department if you are unsure whether the patient is considered Medicare Part B. Even if not using the registry for MIPS, CMS will be tracking outcomes for value based purchasing.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 320
**Long Name:** Secondary (Supplemental) Payor
**Short Name:** PayorSecond
**Definition:** Indicate which if any secondary insurance payor was used for this admission.

**Intent/Clarification:** Government insurance refers to patients who are covered by government-reimbursed care. This includes Medicare, Medicaid, Military Health Care (e.g. TriCare), State-Specific Plan, and Indian Health Service.

CHIP (Children's Health Insurance Plan), High Risk Pools Local Government Health Insurance Plan (LGHIP), state or federal prisoners.
Blue Cross Federal Government is coded as Commercial insurance.
If a patient is in an HMO, choose only HMO, you do not need to also choose commercial.
Code Medicare Replacement plans as Medicare as primary, Commercial as secondary.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | None / self |
| 2 | Medicare |
| 3 | Medicaid |
| 4 | Military Health |
| 5 | Indian Health Service |
| 6 | Correctional Facility |
| 7 | State Specific Plan |
| 8 | Other Government Insurance |
| 9 | Commercial Health Insurance |
| 10 | Health Maintenance Organization |
| 11 | Non-U.S. Plan |

---

**SeqNo:** 330
**Long Name:** Secondary Payor Medicare Fee for Service
**Short Name:** SecondMCareFFS
**Definition:** Indicate whether the patient is covered by Medicare Fee for Service (Part B).

**Intent/Clarification:** The Social Security Website at www.socialsecurity.gov has a list explaining what the letters behind the Medicare claim # stand for. Those letters do not tell you whether they have Part B/Fee for service. It is the relationship of the cardholder to the Medicare/SSN #. For example, B stands for "Aged wife, 62 or older". The A would stand for "Primary claimant=the wage earner". D1 is for an "Aged widower, age 60 or over".

This is used for MIPS (formerly PQRS). Check with your hospital billing department if you are unsure whether the patient is considered Medicare Part B. Even if not using the registry for MIPS, CMS will be tracking outcomes for value based purchasing.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 340
**Long Name:** Surgeon's Name
**Short Name:** Surgeon
**Definition:** Indicate the name of the surgeon responsible for the patient's care.

**Intent/Clarification:** If two surgeons participate in the procedure and both surgeons are participating in the Database, the surgeon of record for the database is the physician under whom the patient is admitted or the physician responsible for the care of the patient. If this is not evident from the operative dictation, communication with the involved physicians is necessary.

---

**SeqNo:** 350
**Long Name:** Surgeon's National Provider Identifier
**Short Name:** SurgNPI
**Definition:** Indicate the individual-level National Provider Identifier of the surgeon performing the procedure. For Non-US surgeons a unique identifier will be assigned by STS.

**Intent/Clarification:** The NPI is a unique identification number for health care providers. Health care providers will use the NPIs in the administrative and financial transactions adopted under HIPAA. The NPI is a 10 - position, intelligence - free numeric identifier (10 - digit number). Meaning that the numbers do not carry other information about healthcare providers, such as the state in which they live or their medical specialty. NPI look up link:
https://nppes.cms.hhs.gov/NPPES/NPIRegistryHome.do

---

**SeqNo:** 360
**Long Name:** Taxpayer Identification Number
**Short Name:** TIN
**Definition:** Indicate the Taxpayer Identification Number for the Taxpayer holder of record for the Surgeon's National Provider Identifier that performed the procedure. This may be an individual TIN or a group TIN depending on billing. This information is vital for MIPS reporting. This field will be blank for Non-US participants

**Intent/Clarification:** If the physician is part of a medical group practice, use the name and taxpayer identification number of the medical group.

---

**SeqNo:** 370
**Long Name:** Hospital Name
**Short Name:** HospName
**Definition:** Indicate the full name of the facility where the procedure was performed. Values should be full, official hospital names with no abbreviations or variations in spelling for a single hospital. Values should also be in mixed-case.

**Intent/Clarification:**

---

**SeqNo:** 380
**Long Name:** Hospital Postal Code
**Short Name:** HospZIP
**Definition:** Indicate the ZIP Code of the hospital. Outside the USA, this data may be known by other names such as "Postal Code". Software should allow sites to collect up to 10 characters to allow for Zip+4 values. This field should be collected in compliance with state/local privacy laws.

**Intent/Clarification:**

---

**SeqNo:** 390
**Long Name:** Hospital Region
**Short Name:** HospStat
**Definition:** Indicate the region of the country (i.e., state or province) in which the hospital is located.

**Intent/Clarification:**

---

**SeqNo**: 400
**Long Name:** Hospital National Provider Identifier
**Short Name:** HospNPI
**Definition:** Indicate the hospital's National Provider Identifier (NPI). This number, assigned by the Center for Medicare and Medicaid Services (CMS), is used to uniquely identify facilities for Medicare billing purposes. Non-US participants will have a unique hospital ID number assigned by STS.

**Intent/Clarification:**

---

## Pre-Operative Evaluation

**SeqNo:** 410
**Long Name:** Height In Centimeters
**Short Name:** HeightCm
**Definition:** Indicate the height of the patient in centimeters.

**Intent/Clarification:**
Height and weight are extremely important for the accurate interpretation of PFTs, body surface area and risk calculations.

**Ft-in = cm**
4’10’’ = 147
4’11’’ = 149
5’0’’ = 152
5’1’’ = 155
5’2’’ = 157
5’3’’ = 160
5’4’’ = 163
5’5’’ = 165
5’6’’ = 168
5’7’’ = 170
5’8’’ = 173
5’9’’ = 175
5’10’’ = 178
5’11’’ = 180
6’0’’ = 183
6’1’’ = 185
6’2’’ = 188
6’3’’ = 190
6’4’’ = 193
6’5’’ = 195
6’6’’ = 198
6’7’’ = 200

---

**SeqNo:** 420
**Long Name:** Weight in Kilograms
**Short Name:** WeightKg
**Definition:** Indicate the weight of the patient in kilograms.

**Intent/Clarification**:
Height and weight are extremely important for the accurate interpretation of PFTs, body surface area and risk calculations. Use the patient’s weight closest to the surgery date.
To convert pounds to kilograms, divide the number of lbs by 2.2 (1 kg = 2.2 lbs).

---

**SeqNo:** 430
**Long Name:** Unintentional Weight Loss in Past Three Months
**Short Name:** WtLoss3Kg
**Definition:** Indicate by the number of kilograms lost in the last three months. Enter “0” if there was no weight loss.

**Intent/Clarification:**
Unintentional weight loss is a significant indicator of the patient’s overall health within the last few months. Unintentional weight loss may be an indicator of underlying pathology. If the amount of weight loss is not documented or it is unclear how much has occurred in the 3 month window leave this field blank.

Examples:

- What do I code for the patient who lost 3 kg in the last 6 months? *Leave blank as you do not know what happened in the last three months.*
- Should we enter 0 or leave blank in case of intentional weight loss over past 3 months? *Blank since it was intentional.*

November 2018: Pt has surgery on 9/17/2018, has chemo prior and on 8/9/2018 it is documented "had an 8 lb wt loss in the last 2 weeks." It was unintentional. He stops chemo and by the surgery date has gained it back. My question for sequence #430, do I record the 8 lbs lost, since it was within the last 3 months, or is the intent for overall wt loss within the 3 months prior to surgery? **No, since the patient gained the weight back following the stopping of chemo.**

---

**SeqNo:** 440
**Long Name:** Hypertension
**Short Name:** Hypertn
**Definition:** Indicate if the patient has a current diagnosis of hypertension defined by any 1 of the following:

- History of hypertension diagnosed and treated with medication, diet, and/or exercise.
- Prior documentation of blood pressure >140 mm Hg systolic and/or ≥ 90 mm Hg diastolic for patients without diabetes or chronic kidney disease, or prior documentation of blood pressure >130 mm Hg systolic or ≥ 80 mm Hg diastolic on at least 2 occasions for patients with diabetes or chronic kidney disease.
- Currently undergoing pharmacological therapy for treatment of hypertension.

(Reference: 2013 ACCF/AHA Data Standards, Cannon et al. JACC Vol. 61, No. 9, 2013)

**Intent/Clarification:**
The History & Physical form will list the patient's past medical history and also will list the current medications. Code 'yes' for patients who report a history of high blood pressure and are currently normotensive on antihypertensive medication.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2019: clarification on where and when the blood pressure data is able to be pulled from and a reasonable time frame for patients leading up to surgery, I am only concerned about accuracy. Some definitions that we are aware are not in alignment with how we would classify things: HTN- STS uses two occasions BP readings whereas guidelines look at 2 consecutive office visits. **Look for B/P data in the patient's medical record. If there is access to the Primary Care Physician record you may use that too. The medical record in the H&P section will provide information on the patient's past medical history and the patient's medications. ACC/AHA guidelines do not indicate that the B/Ps need to be two consecutive. The guidelines say documentation of at least two high B/Ps for patients with renal failure or diabetes**.

---

**SeqNo:** 450
**Long Name:** Congestive Heart Failure
**Short Name:** CHF

**Definition:** ~~Indicate if there is physician documentation or report that the patient has been in a state of heart failure (symptomatic) within the past year.~~

**October 2018 field definition change:** Indicate if the patient has a history of CHF. Documentation of CHF at anytime in the patient's history.

Heart failure is defined as physician documentation or report of any of the following clinical symptoms of heart failure described as unusual dyspnea on light exertion, recurrent dyspnea occurring in the supine position, fluid retention; or the description of rales, jugular venous distension, pulmonary edema on physical exam, or pulmonary edema on chest x-ray presumed to be cardiac dysfunction.
A low ejection fraction alone, without clinical evidence of heart failure does not qualify as heart failure.
An elevated BNP without other supporting documentation should not be coded as CHF.

**Intent/Clarification:**
Congestive heart failure occurs when the heart is unable to pump blood effectively throughout the body. The term congestive is used because lung congestion causes some of the main symptoms of heart failure.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 460
**Long Name:** Preoperative Ejection Fraction
**Short Name:** EF
**Definition:** Indicate the percentage of the blood emptied from the left ventricle at the end of the contraction. Use the most recent determination prior to the surgical intervention documented on a diagnostic report. Enter a percentage in the range of 1 - 99. If a qualitative description is reported, code the mean value for that range; i.e., normal (50-70%) is coded as 60%. If no diagnostic report is in the medical record, a value documented in the medical record is acceptable.

**Intent/Clarification:** Ejection Fraction can be obtained from: Echocardiogram, MUGA scan, CAT scan, cardiac catheterization or a nuclear stress test. Use report that was done within the last 6 months or the most current available data.

ParentLongName: Congestive Heart Failure
ParentShortName: CHF
ParentValue: 1
ParentHarvestCodes: = "Yes"

---

**SeqNo:** 470
**Long Name:** Coronary Artery Disease

**Short Name:** CAD
**Definition:** Indicate whether the patient has a history of coronary artery disease (CAD) as evidenced by one of the following:

1. Currently receiving medical treatment for CAD
2. History of Myocardial Infarction
3. Prior CV intervention including, but not limited to, CABG and/or PCI

**Intent/Clarification:**
Coronary artery disease is a type of atherosclerosis in which plaque builds up inside the arteries that carry blood to the heart. As the artery walls thicken, the passageway for blood narrows. Sometimes platelets gather at the narrowing, forming a clot that decreases or prevents blood flow to the region of the heart supplied by the artery.

Documented blockage ≥ 50% of one or more coronary arteries or documentation of CAD in H&P.

Documentation of angina, myocardial infarction (MI), CABG, PCI*, or sudden cardiac death with no known cause may be included.

*Percutaneous Coronary Intervention (PCI) includes angioplasty, coronary atherectomy and coronary artery stenting.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2019: The patient has a history of prosthetic AV endocarditis s/p re-do AVR. The CABG was performed during the procedure due to RCA injury.The patient is now admitted for thoracic procedure. The definition states "Documentation of angina, MI, CABG, PCI or sudden cardiac death with no known cause may be included" as CAD. Will this be counted as CAD**? Yes for CAD and capture prior thoracic surgery sternotomy approach**
April 2020: How should CAD be coded if the patient has hx of dyslipidemia, under cardiologist care, placed on a statin but has no documented coronary stenosis, MI, PCI or CAB? What qualifies as "Currently receiving medical treatment for CAD"? This does not meet criteria. You can have high cholesterol and not have CAD
May 2020**:** If a patient is receiving combination treatment for CAD (eg. Statins, Beta Blocker, Calcium Channel blocker, anticoagulant, or antianginal) can you code as CAD.**No, cannot use meds as evidence of disease, may be other reasons for using particular meds.**

---

**SeqNo:** 480
**Long Name:** Myocardial Infarction - Preoperative Evaluation
**Short Name:** PreMI
**Definition:** Indicate if the patient has a history of a non-Q wave or a Q-wave myocardial infarction

**Intent/Clarification:**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 490
**Long Name:** Afib per EKG within the last year
**Short Name:** AFIB
**Definition:** Indicate if the patient had Afib per EKG within the last year; with or without treatment

**Intent/Clarification:** Atrial fibrillation (also called AFib or AF) is an irregular heartbeat (arrhythmia) that can lead to blood clots, stroke, heart failure and other heart-related complications. This data element is only capturing Afib. Do not include Aflutter.

August 2018: Physician documentation of Afib within the last year is adequate for documenting "Yes" to Afib. An EKG does not have to be present within the medical record.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

June 2019: Multiple H & P reports that "pt has a history of PAT which required ablation". I did not find any documentation if it is afib or aflutter. Pre-op, not on beta blockers and EKG is NSR. Developed afib post op that was converted with a one time dose of IV Metoprolol and discharged on po Metoprolol. Do I capture the "PAT" on 490, thereby a No on 3560? Or No to 490 and Yes to 3560? **Select 'no' on seq. 490 and select 'yes' on seq. 3560**

---

**SeqNo:** 500
**Long Name:** Valvular Heart Disease
**Short Name:** VHD
**Definition:** Indicate if the patient has had or has the presence of dysfunction of at least one heart valve graded as 2+ or greater on an echocardiogram. Excludes surgically corrected disease.

**Intent/Clarification:** Valvular heart disease is characterized by damage to or a defect in one of the four heart valves: the mitral, aortic, tricuspid or pulmonary~~. If a range is provided (i.e., 1 – 2+) use the highest number given, in this example, 2.~~

**May 2019: Valvular heart disease is not limited to just insufficiency or stenosis. If the patient has valvular heart disease that is documented as 2+ (moderate) or greater this field should be captured.**

The **mitral and tricuspid valves** control the flow of blood between the atria and the ventricles (the upper and lower chambers of the heart). The **pulmonary valve** controls the flow of blood from the heart to the lungs, and the **aortic valve** controls the flow of blood from the heart to the aorta, and thereby the blood vessels to the rest of the body. The **mitral and aortic valves** are the ones most frequently affected by valvular heart disease.

August 2018: 1+ = mild, 2+ = moderate, 3+ = severe. Mild to moderate is less than 2+ and would not qualify as 2+ or greater.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | |

January 2019: In the patient's H&P it specifies that the patient has mitral valve prolapse. There is no echo to confirm 2+ or greater. Should I count MVP as Valvular Heart Disease in this case? **No, do not count MVP as VHD.**

April 2019: Prior to index admission, echocardiogram was done at OSH. Actual report is not available but per Cardiology consult summary, echo shows "moderate mitral and tricuspid regurgitation." No mention of valvular structure. During lung resection admission, echocardiogram was repeated. This one documents that both MV and TV are "normal in structure" but also notes moderate regurgitation. Does moderate regurgitation in presence of normal structure constitute valvular disease? **Yes**, **Moderate regurgitation = 2+**

May 2019: What are the date parameters of the echocardiogram to be used to gather this data? **Within 6 months.**

---

**SeqNo:** 510
**Long Name:** Valvular Heart Disease Location - Aortic Valve
**Short Name:** VHDLocAV
**Definition:** Indicate whether the patient has or had the presence of dysfunction of the aortic valve.

**Intent/Clarification:**

ParentLongName: Valvular Heart Disease
ParentShortName: VHD
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 520
**Long Name:** Valvular Heart Disease Location - Mitral Valve
**Short Name:** VHDLocMV
**Definition:** Indicate whether the patient has or had the presence of dysfunction of the mitral valve.

**Intent/Clarification:**

ParentLongName: Valvular Heart Disease
ParentShortName: VHD
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 530
**Long Name:** Valvular Heart Disease Location - Pulmonic Valve
**Short Name:** VHDLocPV
**Definition:** Indicate whether the patient has or had the presence of dysfunction of the pulmonic valve.

**Intent/Clarification:**

ParentLongName: Valvular Heart Disease
ParentShortName: VHD
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 540
**Long Name:** Valvular Heart Disease Location - Tricuspid Valve
**Short Name:** VHDLocTV
**Definition:** Indicate whether the patient has or had the presence of dysfunction of the tricuspid valve.
**Intent/Clarification:**

ParentLongName: Valvular Heart Disease
ParentShortName: VHD
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 550
**Long Name:** Pulmonary Hypertension
**Short Name:** PulmHypertn

**Definition:** Indicate whether there is physician documentation of Pulmonary Hypertension as documented by:

- Right heart catheterization: mean pulmonary arterial pressure (PAP) > 25 mmHg at rest
- Echocardiographic diagnosis: PA systolic pressure (PASP) >50 mmHg

**Intent/Clarification:**
High blood pressure in the arteries that supply the lungs is called pulmonary hypertension (PHT). The blood vessels that supply the lungs constrict and their walls thicken, so they cannot carry as much blood. This information may be found on a preoperative cardiac catheterization or echocardiogram. If the value is not known or documented, the data sheet should be marked accordingly.

RV systolic pressure may be used if no PA pressure is available, provided there is no pulmonary stenosis.
It is preferable to use pressures measured pre-op, prior to induction of anesthesia. Comment in a CT scan of an "enlarged pulmonary artery" suggestive of pulmonary hypertension is not adequate for this diagnosis.

- "No" should be indicated if there is documentation that the patient does not have Pulmonary Hypertension.
- "Unknown" should be indicated if it is not known if the patient has Pulmonary Hypertension or if testing has not been performed.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 4 | Unknown |

January 2019: Definition states "Echocardiographic diagnosis: PA systolic pressure (PASP) >50 mmHg." I have a patient who had echocardiogram prior to lung resection. Estimated PA systolic pressure was 37 mmHg and cardiologist reported patient as having 'mild pulmonary hypertension.' How should I answer #550 for this patient? **The patient did not meet the criteria (PA systolic pressure > 50mmHg) for Pulmonary HTN. If an ECHO is done the PAS must be > 50mmHg to capture Pulmonary HTN.**

January 2019: A patient has been diagnosed with pulmonary HTN for several years with a PAP >50 on multiple echos. He was direct admitted into the hospital a few days prior to surgery to be diuresed. The patient had a RHC the day prior to surgery which showed a PAP of 20 and no pulmonary HTN. Would this be classified as no since the last result prior to surgery was normal? Or should it be yes, since he had been diagnosed with it for years prior to the surgery? **Use the last ECHO (PA) / right heart cath (PAS) pressure documented closest to surgery. Pulmonary HTN is based on PA systolic pressure > 50mmHg or PAP > 25 mmHg. Pulmonary HTN can change over time as the heart and lungs improve or decline, based on fluid status, etc.**
February 2019: Per definition, RV systolic pressure may be used if a PA pressure is not available, provided there is no pulmonary stenosis, but what is value that is acceptable to STS. Is it the same as the PASP value? Mr. Google has different values. **An RVSP > 40 mm Hg is a reasonable value for PHTN.**

---

**SeqNo:** 560
**Long Name:** Interstitial Fibrosis or Interstitial Lung Disease
**Short Name:** InterstitialFib
**Definition:** Indicate whether the patient has a diagnosis of interstitial fibrosis based on clinical and radiological or pathological evidences.

**Intent/Clarification:**
Interstitial lung disease (ILD), refers to a group of lung diseases affecting the interstitium (the tissue and space around the air sacs of the lungs). It involves alveolar epithelium, pulmonary capillary endothelium, basement membrane, peri-vascular and peri-lymphatic tissues.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: If a patient was diagnosed with interstitial lung disease, then had a lung transplant prior to an analyzed thoracic procedure would this question be coded "yes" or "no"? **No, they do not have ILD**
September 2018: If a patient is diagnosed with black lung disease/chronic lung disease, would I mark yes for field interstitial fibrosis/interstitial lung disease? **No, they are not the same thing**

---

**SeqNo:** 580
**Long Name:** Major Vascular Disease
**Short Name:** MVD
**Definition:** Indicate if the patient has a history of blood vessel disease. Includes aortic or peripheral vascular disease. Excludes coronary artery disease and cerebrovascular disease.

**Intent/Clarification:** Examples include AAA repair or stent; amputation for arterial insufficiency, aorto-iliac occlusive disease reconstruction, peripheral vascular bypass surgery, angioplasty or stent, renal artery atherosclerosis, aortic aneurysm and aortic dissection.

If the patient has documentation of a major vascular disease but has not had surgery and/or is not receiving medical treatment document 'yes' to this field.

**Document any cerebrovascular disease in Cerebrovascular History (Seq. #s 610 and 620)**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2019: If a patient has a past medical history of collagen vascular disease (r/t RA) would this be coded 'Yes'? **Yes**

January 2020: Is there any where to capture as a pre op risk factor a patient under care for a paroxysmal splenic infarct? No, this a rare occurrence and not captured at this time.

May 2020: In abstracting data for major vascular disease the definition states " Includes aortic or peripheral vascular disease". Can a dilated/enlarged ascending Aorta (3.9cm-4.5cm) not noted as aneurysm etc. on preop ECHO be considered Aortic disease? **Yes, ECHO can be used and has to be documented. Has to be a pre-existing disease. Preop echo can be used as documentation.**

---

**SeqNo:** 590
**Long Name:** DVT/PE
**Short Name:** DVTPE
**Definition:** Indicate if the patient has a history of deep venous thrombosis or pulmonary embolus. Excludes superficial thrombophlebitis.

**Intent/Clarification**: DVT occurs when a blood clot forms in one or more of the deep veins in the body, usually the legs. Pulmonary embolism is a clot located in one of the pulmonary arteries in the lungs. In most cases, the clot(s) have traveled to the lungs from the legs or other parts of the body.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 610
**Long Name:** Cerebrovascular History
**Short Name:** CerebroHx
**Definition:** Indicate if the patient has a history of cerebrovascular disease, documented by any one of the following:

- Known disease, no events - diagnostic finding but patient is asymptomatic. The intent is to capture the patients who have radiographically abnormal carotids (could be US, CT, MRI) but have not had symptoms.

- Cerebrovascular Accident (CVA): Patient has a history of stroke, i.e., loss of neurological function with residual symptoms at least 24 hours after onset, presumed to be from vascular etiology.
- Transient Ischemic Attack (TIA): Patient has a history of loss of neurological function that was abrupt in onset but with complete return of function within 24 hours, presumed to be due to vascular etiology.
- Non-invasive/invasive carotid test with greater than 79% occlusion.
- Previous carotid artery surgery/ intervention for carotid artery stenosis.

This does not include neurological disease processes such as metabolic and/or anoxic ischemic encephalopathy.

**Intent/Clarification:**
If a history of previous cerebrovascular disease exists, it should be noted whether the patient's symptoms were reversible (i.e. transient ischemic attack) or irreversible (i.e. stroke).
Example:
What if a transient neuro event lasts more than 24 hours but resolves? Is this coded as reversible or irreversible? *Use the 24 hour timeframe - if symptoms resolve within 24 hours, code as reversible. If symptoms persist for more than 24 hours, code as irreversible.*
Do not code asymptomatic findings on neuro scans as stroke.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | No CVD history |
| 4 | Known disease, no events |
| 2 | Transient Ischemic Attack – TIA– **reversible** |
| 3 | Cerebrovascular Accident – CVA– **irreversible** |

December 2019: The specifications manual states to code "Previous carotid artery surgery/ intervention for carotid artery stenosis" in the cerebrovascular history. The options to choose are No CVD history, Known disease, no events, TIA and CVA. if a patient had an endarctectomy for carotid stenosis, what option should I select under Cerebrovascular history? **Select Known disease, no events.**
December 2019: Patient has surgical history of brain aneurysm with craniotomy and clip; no documented permanent neurologic symptoms or h/o CVA. Is brain aneurysm a pre-operative factor that should be captured or no? **Yes .known disease, no event**

---

**SeqNo:** 620
**Long Name:** Permanent Neurologic Impairment
**Short Name:** PNI
**Definition:** Indicate if the patient has any permanent neurological impairments.

**Intent/Clarification:**

ParentLongName: Cerebrovascular History
ParentShortName: CerebroHx

ParentValue: = "Cerebrovascular Accident - CVA"
ParentHarvestCodes: 3

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 630
**Long Name:** Neurologic symptoms present
**Short Name:** NeuroSymptPres
**Definition:** Indicate if the patient has any neurologic symptoms the surgeon attributes to the cancer or the treatment of the cancer. Examples include headache due to brain involvement, loss of sensation/strength in an upper extremity due to brachial plexus involvement, voice hoarseness due to cancer involvement of the recurrent laryngeal nerve or a paralyzed diaphragm due to cancer involvement of the phrenic nerve. Symptoms should be present within a month of the surgical assessment.

**Intent/Clarification:** Indicate if neurologic symptoms due to cancer involvement or treatment of that cancer are present.
Indicate “yes” if the patient has neurologic symptoms attributable to brain metastases and “no” if not.

If cancer is NOT being treated, select ‘no’.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 640

**Long Name:** Myasthenia Gravis

**Short Name:** MyasGravis

**Definition:** Indicate if the patient has a diagnosis of myasthenia gravis based upon serologic testing, electromyography, or provocative pharmaceutical tests.

**Intent/Clarification:**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 650

**Long Name:** Diabetes

**Short Name:** Diabetes

**Definition:** History of diabetes diagnosed and/or treated by a healthcare provider. The American Diabetes Association criteria include documentation of the following:

1. Hemoglobin A1c ≥6.5%; or
2. Fasting plasma glucose ≥ 126 mg/dL (7.0 mmol/L); or
3. 2-h Plasma glucose ≥ 200 mg/dL (11.1 mmol/L) during an oral glucose tolerance test; or
4. In a patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose ≥ 200 mg/dL (11.1 mmol/L)

This does not include gestational diabetes.

2013 ACCF/AHA Data Standards Cannon et al. JACC Vol. 61, No. 9, 2013

**Intent/Clarification:**

Indicate if the patient has a history of diabetes mellitus regardless of duration of disease or need for anti-diabetic agents. Exclusions are steroid induced hyperglycemia and gestational (transient), without elevated HbA1c and/or treatment; Code 'No'.

Not all patients receiving diabetic medications are considered diabetic. It is important to remember, some medications used to treat diabetes may be used to treat other conditions.

A hemoglobin A1c value of ≥ 6.5%, collected within 3 months prior to surgery, is acceptable to use for documentation of diabetes = "yes".

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: Patient takes 1000mg of Glucophage daily for 'pre-diabetes' per PCP office notes. Lab tests are all normal. How should #650 be coded? **No, patient does not meet criteria for diabetes.**

---

**SeqNo:** 660

**Long Name:** Diabetes Therapy

**Short Name:** DiabCtrl

**Definition:** Indicate the diabetes therapy method. Patients placed on a preoperative diabetic pathway of insulin drip, then were controlled with "None", diet or oral methods, are not coded as insulin dependent.

Choices are:
None = No treatment for diabetes
Diet = Diet treatment only
Oral = Oral agent or other non-insulin treatment only

Insulin = Insulin treatment (includes any combination with insulin)

**Intent/Clarification:**

ParentLongName: Diabetes
ParentShortName: Diabetes
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code: | Value: | Definition: |
|---|---|---|
| 1 | None | No treatment for diabetes |
| 2 | Diet only | Treatment with diet only |
| 8 | Oral | Treatment with oral agent (includes oral agent with or without diet treatment) |
| 4 | Insulin | Insulin treatment (includes any combination with insulin) |
| 6 | Other subcutaneous medication | Other subcutaneous medications (such as GLP-1 anagonists;Byetta,Bydureon,Victoza,Symlin) |
| 5 | Other | Other adjunctive treatment, non-oral/insulin/diet |
| 7 | Unknown | |

---

**SeqNo:** 670

**Long Name:** Liver Dysfunction

**Short Name:** LiverDys

**Definition:** Indicate if there is the presence of disease of the liver which results in impaired synthetic function as reflected in abnormal laboratory values such as coagulation factors, bilirubin, albumin or a known diagnosis of cirrhosis based upon liver biopsy. Excludes radiographic diagnosis of cirrhosis without coexisting sequelae of liver disease such as ascites, varices or abnormal laboratory values. Includes patients with documented chronic hepatitis B or C infection.

**Intent/Clarification:** ~~Indicate whether the patient has a history of hepatitis B, hepatitis C, cirrhosis, portal hypertension, esophageal varices, chronic alcohol abuse or congestive hepatopathy.~~
Exclude NASH in the absence of cirrhosis.

Indicate 'yes' if the patient has any documented active liver dysfunction, documented cirrhosis/chronic hepatitis B/C, or abnormal liver function tests.

LFTs or a MELD score alone **cannot** be used to code "Yes" to liver disease since other conditions impact these lab values. Liver fibrosis with recurrent ascites, supported by the MELD can be coded as liver disease.
The following are not coded as liver disease:

- Hepatitis A
- Gilberts syndrome

- Fatty liver
- Liver Cancer

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

August 2018: Liver dysfunction should be based on physician documentation and documentation of hepatitis B, hepatitis C, cirrhosis, portal hypertension, esophageal varices, or congestive hepatopathy. A history of ETOH abuse alone does not qualify as liver dysfunction.
February 2019: If a patient is diagnosed with NASH (nonalcoholic steatohepatitis), would I code No to Seq 670? **In the absence of cirrhosis, NASH is not clinically relevant. Exclude NASH in the absence of cirrhosis.**
October 2019: Need clarification: Patient is a Hepatitis B carrier identified with labs prior to starting neoadjuvant chemotherapy and was subsequently started on oral VIREAD daily. The first positive Hep B lab result dates > 6 months prior. Unknown exposure. The patient has never been symptomatic. Would I select Yes for SEQ # 670 considered chronic hepatitis B infection? **YES**
December 2019: The patient has auto immune liver disease and cannot take many medications because of this. should i code yes to liver dysfunction? **Yes**

---

**SeqNo:** 680

**Long Name:** On Dialysis

**Short Name:** Dialysis

**Definition:** Indicate whether the patient is currently undergoing dialysis. This includes hemodialysis, peritoneal dialysis, or CRRT. Does not include ultrafiltration.

**Intent/Clarification:**
Includes any form of peritoneal or hemodialysis the patient is receiving prior to surgery.

Code '"No" for renal dialysis if ultrafiltration is the only documentation found in the record since this is for volume management.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 690

**Long Name:** Coexisting Cancer

**Short Name:** CoexisCancer

**Definition:** Indicate if the patient is being treated or surveyed for an active malignancy not related to the thoracic disease being evaluated and treated by the thoracic surgeon.

Examples: 1) The patient is undergoing a lung resection for lung cancer and has known lymphoma for which they are being observed. 2) Patient with lung cancer undergoing resection with known bladder cancer for which a staged procedure is planned. 3) Patient diagnosed with lung cancer and rectal cancer at the same time, undergoing therapy for both simultaneously.

Notably, this does not include previously treated cancers that have completed treatment and are in active surveillance.

**Intent/Clarification:** Synchronous primary lung cancers should be coded as "No". The intent is to capture cancer of another organ.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

June 2019: Would we mark YES if the patient has previous prostate cancer and is taking a hormone-based chemotherapy (Zytiga/Abiraterone) or Lupron? Similarly, something like Tamoxifen after breast cancer?
**If the patient is receiving treatment for an active disease or tumor then you would indicate 'yes'. If the patient does not have an active malignancy but is receiving medication for prophylactic therapy, indicate 'no'.**
February 2020: If a patient had a positive cologuard test during a rectal cancer screening and is supposed to follow up with GI dr, is this considered a coexisting cancer? **No**

---

**SeqNo:** 700

**Long Name:** Preoperative Chemotherapy or Immunotherapy

**Short Name:** PreopChemoCur

**Definition:** Indicate whether the patient received preoperative chemotherapy ~~for the current thoracic malignancy. Do not report treatment for prior cancers.~~

**Intent/Clarification:** Includes any chemotherapy the patient has ever had.
Do not include methotrexate given for arthritis. Include all forms of chemotherapy. Not limited to IV administered agents.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: Seq 700 reads as preoperative Chemotherapy or Immunotherapy. My question is if a patient is on Cell Cept which equals an 'other' immunosuppressive therapy for seq 2330 for Myasthenia do I answer seq 700 as Yes or No? **Chemotherapy should only be collected for cancer history. Answer as 'No'.**
December 2018: Long name for 700 is 'Preoperative Chemotherapy or Immunotherapy'. However, definition and intent/clarification only mention chemotherapy, not immunotherapy. Are we supposed to capture preoperative immunotherapy for 700 and 710? Assuming answer is yes, is tamoxifen prescribed for breast cancer considered immunotherapy? **No, this is hormonal therapy and should have no effect on a lung cancer.**
October 2019: Would Tagrisso (an EGFR Inhibitor) be captured in #700? The patient had Stage IV lung CA with brain mets and received Tagrisso with good results and was able to go on for a lobectomy. **Yes, this should be captured for Seq. 700.**
February 2020: The patient is being treated for a concurrent prostate cancer with Lupron. Is this a chemotherapy/immunotherapy Seq#700 drug? **No, hormone therapy not chemo/immunotherapy**

---

**SeqNo:** 710

**Long Name:** Preoperative Chemo ~~- Current Malignancy~~

**Short Name:** PreopChemoCurWhen

**Definition:** Indicate when the patient received preoperative chemotherapy and for what disease.

**Intent/Clarification:** Indicate when the patient had chemotherapy for an unrelated disease or for the current disesase.

ParentLongName: Preoperative Chemotherapy or Immunotherapy
ParentShortName: PreopChemoCur
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 3 | Same disease, <= 6 months |
| 4 | Same disease,> 6 months |
| 5 | Unrelated disease, <= 6 months |
| 6 | Unrelated disease, >6 months |

September 2018: Title of the data element says "Current Malignancy." However, the definition states "Indicate when the patient received preoperative chemotherapy and for what disease." Responses include two options for unrelated disease. Please clarify whether we should only consider the current thoracic malignancy for this data element or is "Current Malignancy" an inadvertent carry-over from v2.3? **The title "Current Malignancy" is wrong; if the patient had chemo for an unrelated disease, we want to capture that.**
December 2019: I have a patient that I am currently abstracting a case for a RML wedge resection. The patient previously had chemo and radiation for a RUL primary malignant lesion several years earlier. The current RML lesion is a recurrence of the earlier cancer. Should the earlier chemo and radiation be abstracted as same disease since it is a recurrence just in a different spot? **Yes to Chemo. Unrelated disease greater than 6 months.**

---

**SeqNo:** 720

**Long Name:** Preoperative Thoracic Radiation Therapy

**Short Name:** PreopXRT

**Definition:** Indicate if the patient has received preoperative radiation therapy to the chest for any reason prior to this operation. May be included as a component of a chemo radiation induction therapy. This item should also be selected if the radiation oncologist gave the patient radiation therapy prior to sending the patient for any surgical evaluation, if the intent of the radiation oncologist was to "shrink the tumor" prior to surgical intervention.

**Intent/Clarification:** The intent is to capture any radiation the patient has previously had. Particularly radiation to any field where the surgeons will be operating.
Radiation therapy causes changes to the tissues which may increase difficulty and or risk in subsequent surgeries.
~~Breast cancer radiation is excluded.~~

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

May 2019: Patient has history of marginal zone lymphoma with biopsy-proven involvement of right axillary lymph node. In 2016 received radiation treatment to axillary node consisting of 30 Gy in 15 fractions. Patient now has lobectomy for right upper lobe lung cancer. Does axillary radiation qualify as thoracic radiation? **Yes**

---

**SeqNo:** 730

**Long Name:** Preoperative Thoracic Radiation Therapy - Disease And When Treated

**Short Name:** PreopXRTDisWhen

**Definition:** Indicate when the patient received preoperative thoracic radiation therapy and for what disease.

**Intent/Clarification:**
If patient did not receive preoperative radiation therapy as indicated by a “Yes” in PreopXRT, there should not be an option to answer.

ParentLongName: Preoperative Thoracic Radiation Therapy
ParentShortName: PreopXRT
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Same disease, <= 6 months |
| 2 | Same disease, > 6 months |

3 Unrelated disease, <= 6 months

4 Unrelated disease, > 6 months

---

**SeqNo:** 740
**Long Name:** Preoperative Thoracic Radiation Therapy - Completion Date
**Short Name:** PreopXRTCompDt
**Definition:** Indicate the completion date of the patient's radiation therapy. If specific day is unknown, enter 01 as the day.

**Intent/Clarification:**

Example – if documentation states radiation completed April 2017, document 04/01/2017

ParentLongName: Preoperative Thoracic Radiation Therapy - Disease And When Treated
ParentShortName: PreopXRTDisWhen
ParentValue: = "Same disease, <= 6 months
ParentHarvestCodes: 1

---

**SeqNo:** 750
**Long Name:** Prior Cardiothoracic Surgery
**Short Name:** PriorCTS
**Definition:** Indicate whether the patient has undergone **any prior** cardiac and/or general thoracic surgical procedure that required a general anesthetic and an incision into the chest or mediastinum. Thoractomy, median sternotomy, anterior mediastinotomy, video-assisted and robot-assisted thoracic surgeries are included here. A cervical mediastinoscopy or tube thoracostomy would not be included.

**Intent/Clarification:** The intent is to capture **any prior surgery** which may affect the operative field.
Prior cardiothoracic surgery causes scar tissue to form and may increase difficulty and or risk in subsequent procedures.
Do not include transcatheter procedures if no chest incision was performed.
Code 'yes' to this field if the patient had a previous CT surgery performed with a robot.
Mastectomies are not considered CT Surgery as the pleural space is not being entered.
Does not need to in the same surgical field as the current surgery.

If the thoracic surgeon is doing a trans-abdominal approach, and the patient has had prior abdominal surgery, this should be captured in Seq. 1410.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: What approach are we to choose if patient has had a previous anterior mediastinotomyy (Chamberlain)? **Choose 'yes' to the parent field and then choose 'no' to all of the approach choices. This will be addressed in the next version.**

---

**SeqNo:** 760
**Long Name:** Prior Cardiothoracic Surgery – Sternotomy
**Short Name:** PriorStern
**Definition:** Indicate if the patient has had a prior sternotomy procedure.

**Intent/Clarification:**

ParentLongName: Prior Cardiothoracic Surgery
ParentShortName: PriorCTS
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2019: I have a mediastinal mass/GCT case and pt had a median sternotomy, mediastinal tumor resection with neurolysis of phrenic nerve and RUL and LLL wedge resection. Pt previously had a pericardial window performed via a small incision of the xiphoid process and the xiphoid process was resected. Since the pericardial window was done subxiphoid, would this be answered "yes" for a prior Sternotomy? **NO**

---

**SeqNo:** 770
**Long Name:** Prior Cardiothoracic Surgery - VATS / Robotic
**Short Name:** PriorVATS
**Definition:** Indicate if the patient has had a prior VATS / Robotic procedure.

**Intent/Clarification:**

ParentLongName: Prior Cardiothoracic Surgery
ParentShortName: PriorCTS
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: The patient had a Laparoscopic Hernia Repair 43281, and returns for a reop. I have answered yes to Seq770 for a prior VATS, but need clarification on Seq780 as there is no laterality given in the chart. **Laparoscopic surgery is not the same as a VATS procedure. In this case indicate 'No' to Seq. 770 then indicate 'yes' on Seq. 1410.**

---

**SeqNo:** 780
**Long Name:** Prior Cardiothoracic Surgery - VATS / Robotic – Location
**Short Name:** PriorVATSLoc
**Definition:** Indicate if the prior VATS / Robotic procedure was on the right side, left side or bilaterally.

**Intent/Clarification:**

ParentLongName: Prior Cardiothoracic Surgery - VATS / Robotic
ParentShortName: PriorVATS
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Right |
| 2 | Left |
| 3 | Bilateral |

---

**SeqNo:** 790
**Long Name:** Prior Cardiothoracic Surgery - Pulmonary Resection
**Short Name:** PriorPulmRes
**Definition:** Indicate if the patient has had a prior pulmonary resection.

**Intent/Clarification:** This includes therapeutic wedge resection, segmentectomy, lobectomy, bilobectomy or pneumonectomy.

ParentLongName: Prior Cardiothoracic Surgery
ParentShortName: PriorCTS
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

January 2019: I have a patient who I am collecting a form on for a Nissen procedure. The Pt. had a bilateral lung transplant previously. For the sequence concerning prior pulmonary resection would the answer be yes or no? The handbook is vague in the definition but I would interpret it as the transplant would be considered yes and bilateral since the native lungs were both removed by pneumonectomy before the transplant could be completed. **Yes, that is correct.**

---

**SeqNo:** 800
**Long Name:** Prior Cardiothoracic Surgery - Pulmonary Resection – Location
**Short Name:** PriorPulmResLoc
**Definition:** Indicate if the prior pulmonary resection was on the right side, left side or bilaterally.

**Intent/Clarification:**

ParentLongName: Prior Cardiothoracic Surgery - Pulmonary Resection
ParentShortName: PriorPulmRes
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Right |
| 2 | Left |
| 3 | Bilateral |

---

**SeqNo:** 810
**Long Name:** Prior Cardiothoracic Surgery – Thoracotomy
**Short Name:** PriorThora
**Definition:** Indicate if the patient has had a prior thoracotomy procedure.

**Intent/Clarification:**

ParentLongName: Prior Cardiothoracic Surgery
ParentShortName: PriorCTS
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

January 2019: If a patient has history of a Prior CABG, would they constitute coding "Yes" to Prior thoracotomy? If the patient had a prior CABG it would be a sternotomy (seq. 750).

---

**SeqNo:** 820
**Long Name:** Prior Cardiothoracic Surgery - Thoracotomy – Location
**Short Name:** PriorThoraLoc
**Definition:** Indicate if the prior thoracotomy procedure was on the right side, left side or bilaterally.

**Intent/Clarification:** Clamshell incision = “bilateral”

ParentLongName: Prior Cardiothoracic Surgery - Thoracotomy
ParentShortName: PriorThora
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Right |
| 2 | Left |
| 3 | Bilateral |

---

**SeqNo:** 830
**Long Name:** PreOp Medical History - Chronic Immunosuppressive Therapy
**Short Name:** PreOpImmunoThx
**Definition:** Indicate if the patient has required the regular administration of corticosteroids (e.g. Prednisone, Decadron) or other immunosuppressant or chemotherapeutic medications (e.g. methotrexate, abatacept (Orencia), Adalimumab (Humira), etanercept (Enbrel), cyclosporine, tacrolimus, azathioprine, mycophenolate mofetil) within the 30 days prior to the principal operative procedure or at the time the patient is being considered as a candidate for surgery, for a chronic medical condition (e.g. COPD, asthma, rheumatologic disease, rheumatoid arthritis, inflammatory bowel disease). A one-time steroid pulse or a limited short steroid course (< 10 days), does not qualify. Do not include topical corticosteroids applied to the skin or corticosteroids administered by inhalation or rectally.

**Intent/Clarification:** Patients have a preop/pre-anesthesia visit with med reconciliation, generally there is a requirement that they be evaluated within a month of surgery.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: If a patient had a spleenectomy should sequence #830 be answered as "yes"? He is not on therapy but he is still considered immuno-compromised. **This as strictly medically immunocompromised (immunosuppression) or HIV.**
January 2019: The FAQ Dec 2018 is confusing: Does that mean a splenectomy is NO now for Seq 830? **Only patients on immunosuppressive medications/ therapies are to be captured here. While a patient with a history of a splenectomy is immunosuppressed, it is not indicated here.**
March 2019: I am seeing several patients on Keytruda. How do we capture this drug? Is it Chemotherapy or an Immunosuppressive drug? **Immune therapy drug so capture as chemo.**

---

**SeqNo:** 840
**Long Name:** PreOp Medical History - Chronic Anticoagulation Therapy
**Short Name:** PreOpAnticoagThx
**Definition:** Indicate if the patient has used an oral or injectable anticoagulant within the 30 days prior to the principal operative procedure or at the time the patient is being considered as a candidate for surgery.
Defined as any anticoagulation medication other than ASA or NSAIDs.

**Intent/Clarification:** Patients have a preop/pre-anesthesia visit with med reconciliation, generally there is a requirement that they be evaluated within a month of surgery.

Examples are: Coumadin/warfarin, heparin, Xarelto/rivaroxaban, Pradaxa/dabigatran, Eliquis/apixaban, Savaysa/edoxaban, Lovenox/enoxaparin, Arixtra/fondaparinux
Antiplatelet medications are included. Some examples: clopidogrel, prasugrel, ticagrelor, and ticlopidine

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: Patient having VATs Lobectomy on Plavix for prior cardiac stents. Defined as antiplatelet, but also inhibits clotting. Would you code this as anticoagulant? **Yes, code as an anticoagulant since there is a risk for bleeding from the patient being on the medication.**
May 2019: Should antiplatelet medications such as clopidogrel, prasugrel, ticagrelor, and ticlopidine be considered anticoagulation therapy for sequence #840? **Yes, include antiplatelet medications**

---

**SeqNo:** 850
**Long Name:** PreOp Medical History - Home O2
**Short Name:** PreOpHomeO2
**Definition:** Indicate if the patient uses any supplemental oxygen at home.

**Intent/Clarification:** This includes PRN O2 use.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 870
**Long Name:** Creatinine Level Measured
**Short Name:** CreatMeasured
**Definition:** Indicate whether the creatinine level was measured within one month prior to the surgical procedure and prior to anesthetic management (induction area or operating room).

**Intent/Clarification:**
Creatinine, urea and urate all increase as the ability of the kidneys to filter fluid within the body declines. Creatinine is a marker for kidney function.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 880
**Long Name:** Last Creatinine Level
**Short Name:** CreatLst
**Definition:** Indicate the creatinine level closest to the date and time prior surgery.

**Intent/Clarification:**
Prior to anesthetic management (induction area or operating room).

A creatinine level should be collected on all patients, even if they have no prior history of renal disease. A creatinine value is an important predictor of a patient's outcome and is used in the predicted risk models.

Creatinine (Cr) is a chemical waste molecule that is generated from muscle metabolism. If the kidneys become impaired for any reason, the creatinine level in the blood will rise due to poor clearance by the kidneys. Abnormally high levels of creatinine indicate possible malfunction or failure of the kidneys.

Anesthetic management begins when a member of the anesthesiology team initiates care. The administration of IV fluids in the holding area can cause dilution of blood. Do not capture labs drawn after the patient receives fluids in the holding area or O.R.

ParentLongName: Creatinine Level Measured
ParentShortName: CreatMeasured
ParentValue: = "Yes"
ParentHarvestCodes: 1

**SeqNo:** 890
**Long Name:** Hemoglobin Level Measured
**Short Name:** HemoglobinMeasured
**Definition:** Indicate whether the patient's hemoglobin level was measured within one month prior to this surgical procedure.

**Intent/Clarification:** Hemoglobin is the protein molecule in red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues to the lungs. The iron contained in hemoglobin is responsible for the red color of blood.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 900
**Long Name:** Last Hemoglobin Level
**Short Name:** HemoglobinLst
**Definition:** Indicate the hemoglobin level closest to the date and time prior to surgery and prior to anesthetic management (induction area or operating room).

**Intent/Clarification:** The hemoglobin (Hgb) test may be used to screen for, diagnose, or monitor a number of conditions and diseases that affect red blood cells (RBCs) and/or the amount of hemoglobin in blood. The hospital laboratory report should be accessed first when coding this variable. If this is unavailable, then additional source documents may be referenced for lab results.

Capture only measured hemoglobin levels, not calculated values.

Anesthetic management begins when a member of the anesthesiology team initiates care. The administration of IV fluids in the holding area can cause dilution of blood. Do not capture labs drawn after the patient receives fluids in the holding area or O.R.

The value used should be the most recent one prior to entering the operating room.

ParentLongName: Hemoglobin Level Measured
ParentShortName: HemoglobinMeasured
ParentValue: = "Yes"
ParentHarvestCodes: 1

---

**SeqNo:** 910
**Long Name:** Pulmonary Function Tests Performed

**Short Name:** PFT
**Definition:** Indicate whether pulmonary function tests (PFT's) were performed prior to this operation. PFT's done more than 12 months prior to the primary surgical procedure do not qualify.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

PFTs are part of the NQF measure set and are required before any major anatomic lung resection, unless valid exclusion criteria are met.

**Intent/Clarification:** Pulmonary function testing is a valuable tool for evaluating the respiratory system, representing an important adjunct to the patient history, various lung imaging studies, and invasive testing such as bronchoscopy and open-lung biopsy. Insight into underlying pathophysiology can often be gained by comparing the measured values for pulmonary function tests obtained on a patient at any particular point with normative values derived from population studies. The percentage of predicted normal is used to grade the severity of the abnormality. Pulmonary function testing is used in clinical medicine for evaluating respiratory symptoms such as dyspnea and cough, for stratifying preoperative risk, and for diagnosing common diseases such as asthma and chronic obstructive pulmonary disease.

PFT = "yes" if only FEV1 is done.

Use bedside PFTs if that's the only available test.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

May 2020: Covid – 19 Update: PFT's are more difficult to obtain at present time due to either labs being closed or due to minimizing patient exposure to the hospitals and clinics. The STS National Database Surgeon Leadership and Task Force is aware of this issue and missing PFT's will be taken into account. Programs will not be penalized for not obtaining PFT's during this challenging time. Please code this variable as No and indicate patient unable to perform for seq. 920.

---

**SeqNo:** 920
**Long Name:** PFT Not Performed Reason
**Short Name:** PFTNotPerReas
**Definition:** Indicate the reason why pulmonary function testing was not done.

**Please follow up with surgeon if PFTs were not done and you are unable to determine why PFTs were not performed.**

**Intent/Clarification:** There are acceptable reasons not to perform PFTs. These will be included in the NQF exclusions:

- Not Major Lung Resection
- Never smoked, no lung disease
- Patient unable to perform
- Tracheostomy or ventilator dependent
- Urgent or emergent status

Major lung resections without PFT results and no appropriate NQF exclusion will not be analyzed.

Example:
Lung resections that are listed the Analyzed Procedure section on the DCF should have PFTs. A therapeutic wedge resection is an analyzed procedure and PFTs are expected.

ParentLongName: Pulmonary Function Tests Performed
ParentShortName: PFT
ParentValue: = "No"
ParentHarvestCodes: 2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Not Major Lung Resection |
| 2 | Never smoked, no lung disease |
| 3 | Patient unable to perform |
| 4 | Tracheostomy or ventilator dependent |
| 5 | Urgent or emergent status |

---

**SeqNo:** 930
**Long Name:** Forced Expiratory Volume Test Performed
**Short Name:** FEV
**Definition:** Indicate whether a Forced Expiratory Volume at 1 second (FEV1) test was performed. FEV1 test should be performed for a major lung resection (e.g., wedge resection, segmentectomy, lobectomy, sleeve lobectomy, bilobectomy, or pneumonectomy). Select "Not applicable" ONLY if none of these procedures was performed.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:**

ParentLongName: Pulmonary Function Tests Performed
ParentShortName: PFT
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not applicable |

---

**SeqNo:** 940
**Long Name:** FEV1 Predicted
**Short Name:** FEVPred
**Definition:** Indicate the % predicted FEV1 obtained for the patient.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:** Indicate the FEV1 % predicted from the most recent pulmonary function test prior to procedure. Do not use values obtained more than 12 months prior to surgery. Choose the highest value reported for % predicted, whether or not a bronchodilator was used.

FEV1 is the maximal amount of air forcefully exhaled in one second. It is then converted to a percentage of normal. For example, the FEV1 may be 80% of predicted based on height, weight, and gender. FEV1 is a marker for the degree of obstruction. In normal persons, the FEV1 accounts for the greatest part of the exhaled volume from a spirometric maneuver and reflects mechanical properties of the large and the medium-sized airways.

If there are multiple PFTs in the record, choose the study which best reflects the patient's status just prior to surgery.

To calculate the % predicted, in case the report only shows the % changed, divide the actual by the predicted.

PFT Report –
Predicted Pre bronchodilator - 3.80
Actual Pre-bronchodilator - 2.65

2.65 / 3.80= 69.7 (actual divided by predicted)

ParentLongName: Forced Expiratory Volume Test Performed
ParentShortName: FEV
ParentValue: = "Yes"
ParentHarvestCodes: 1
December 2019: The FAQs indicate to record the highest FEV1 % predicted whether or not a bronchodilator was used. Is this to include patients in situations when a bronchodilator was not used? Or are we to include the post bronchodilator FEV1% predicted results if they are the highest? **Use the highest score (if more than one) r what you have.**

**SeqNo:** 950
**Long Name**: DLCO Test Performed
**Short Name**: DLCO
**Definition:** Indicate whether a lung diffusion test (DLCO) was performed. DLCO test should be completed prior to major lung resection (e.g., wedge resection, segmentectomy, lobectomy, sleeve lobectomy, bilobectomy, or pneumonectomy). Select "Not applicable" ONLY if none of these procedures were done.

**Intent/Clarification:** The diffusing capacity (DLCO) is a test of the integrity of the alveolar-capillary surface area for gas transfer.

**DO NOT USE the DLCO/VA (adjusted/corrected)**.
Do not use values obtained more than 12 months prior to surgery.

ParentLongName: Pulmonary Function Tests Performed
ParentShortName: PFT
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not applicable |

September 2018: “Dsb” is “single-breath carbon monoxide diffusing capacity”. The term is largely of historical interest and is used interchangeably with DLCO.
May 2019: I see in the dictionary it states not to use DLCO/VA adjusted/corrected. I just want to be clear that we are also NOT to use adjusted/corrected values for DLCO even if we are located at altitude? **Yes, you are to use unadjusted values even at higher altitudes.**

**SeqNo:** 960
**Long Name:** DLCO Predicted
**Short Name:** DLCOPred
**Definition:** Indicate the % predicted DLCO value obtained for the patient.

**Intent/Clarification:** The diffusing capacity (DLCO) may be reduced, <80% predicted, in disorders such as emphysema, pulmonary fibrosis, obstructive lung disease, pulmonary embolism, pulmonary hypertension and

anemia. DLCO>120% of predicted may be seen in normal lungs, asthma, pulmonary hemorrhage, polycythemia, and left to right intracardiac shunt.

Choose the value that represents the **highest % predicted** unadjusted/uncorrected DLCO.

**DO NOT USE the DLCO/VA (adjusted/corrected)**.

ParentLongName: DLCO Test Performed
ParentShortName: DLCO
ParentValue: = "Yes"
ParentHarvestCodes: 1
February 2020: I would like to know if the following are equivalent to DLCO: DLCO_SB ml/(min*mmHg) DLCOcSB ml/(min*mmHG) DL/VA ml/(min*mmHg*L)? **Use unadjusted/uncorrected DLCO value**

---

**SeqNo:** 970
**Long Name:** Cigarette Smoking
**Short Name:** CigSmoking
**Definition:** Indicate the patient's history of smoking cigarettes.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:** Electronic cigarettes (Ecig) = "No" Do not code use of medical and non-medical (recreational) marijuana. The field is only asking for cigarette usage. Only document cigarette smoking.

Example: How do you code smoking status if there is conflicting documentation in the chart? Code yes to smoking if any provider documents it in the record and capture the highest number of pack years documented.

Example: Patient who smoked prior to admission, has been in the hospital > 2 weeks prior to surgery, and did not smoke while in the hospital is captured as “Yes”. The patient smoked within the 30 day window.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Never smoked |
| 2 | Past smoker (stopped more than 30 days prior to operation) |
| 3 | Current smoker (within 30 days of surgery) |
| 4 | Unknown |

October 2019: Patient has 40 year history of smoking 5 cigars a day. Is this captured as a smoking history in any way? **NO, cigarettes only**

February 2020: I have a patient documented as following:" Tobacco - Medium Risk, 12/23/2013 Never (less than 100 in lifetime) Tobacco Use. Never Smokeless Tobacco Use., 11/06/2019 Current every day smoker, Chew, 12/23/2013" and in the H&P it's documented as " Never smoked, considerable second hand smoke exposure". Should I filled this field as yes due to chewing tobacco ? should I

fill it as yes due to second hand smoking? or should I fill it as "Never smoker" as it specifically asking a cigarette first hand smoking" ? **Code as Never smoked.**

---

**SeqNo:** 980
**Long Name:** Pack Years Known or can be estimated
**Short Name:** PackYearKnown
**Definition:** Indicate whether the number of pack years is known or can be estimated.

**Intent/Clarification:** If no pack year is documented indicate 'no'.

ParentLongName: Cigarette Smoking
ParentShortName: CigSmoking
ParentValue: = "Past smoker (stopped more than 30 days prior to operation)" or "Current smoker""
ParentHarvestCodes: 2|3

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 990
**Long Name:** Pack-Years Of Cigarette Use
**Short Name:** PackYear
**Definition:** Indicate the number or estimate the number of pack-years by multiplying the number of packs of cigarettes smoked per day by the number of years of smoking. For example, if the patient smoked 1 ppd for 10 years (1 ppd x 10 years = 10 pack years) and 3 ppd for the next 10 years (3 ppd x 10 years = 30 pack years), equals 40 pack years (10 pack years + 30 pack years = 40 pack years.

**Intent/Clarification:** Code the highest # of pack years if you have a range, ex. 20-30 years, code 30.

ParentLongName: Pack Years Known or can be estimated
ParentShortName: PackYearKnown
ParentValue: = "Yes"
ParentHarvestCodes: 1

---

**SeqNo:** 1000
**Long Name:** Narcotic dependency (Substance abuse)
**Short Name:** NarcoticDepend

**Definition:** Indicate if the patient has routine, daily use of prescription narcotics for > 30 days prior to surgery (including nonmedical use) or admitted abuse of substances (e.g. heroin, cocaine, inhalants, LSD, narcotics obtained without prescription, etc.).

**Updated Dec. 2019**

**Intent/Clarification:** ~~Nonmedical use of prescription narcotics involves taking prescription medications, not in the way, for the reasons, or during the time period prescribed. Or the use by a person for whom the drug was not prescribed.~~ Indicate if the patient has routine, daily use of prescription narcotics (including nonmedical use) or admitted abuse ofsubstances (e.g. heroin, cocaine, inhalants, LSD, narcotics obtained without prescription, etc.) for > 30 days prior to surgery

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

August 2019: The medical record indicates that the patient currently abuses Drugs and later explains it is Marijuana PO daily. Would this considered as narcotic dependency? **Marijuana is not a narcotic.**

---

**SeqNo:** 1010
**Long Name:** Alcohol Abuse
**Short Name:** AlcoholAbuse
**Definition:** Indicate if the patient admits to drinking >2 ounces of hard liquor or > two 12 oz. cans of beer or > two 6 oz. glasses of wine per day in the two weeks prior to admission. If the patient is a binge drinker, the numbers of drinks during the binge are divided by seven days and then the definition is applied.

**Intent/Clarification: Indicate 'yes' if the alcohol abuse is documented in the medical record or documented by a family member but denied by the patient.**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1020
**Long Name:** Dementia or neurocognitive dysfunction
**Short Name:** DemNeroDys
**Definition:** Indicate if the patient has had mental status changes and/or delirium in the context of the current illness or chronic/long-standing mental status changes secondary to chronic mental illness (e.g., schizophenria; bipolar disorder) or chronic dementing illnesses (e.g., multi-infarct dementia, senile dementia of the Alzheimer's type).

**Intent/Clarification**: The intent is to capture chronic mental illness including dementia and neurocognitive dysfunction. Capture a person with an overall decline in cognitive ability in this field. Includes TBI.

According to the NIH National Institute on Aging: "Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—and behavioral abilities to such an extent that it interferes with a person's daily life and activities. These functions include memory, language skills, visual perception, problem solving, self-management, and the ability to focus and pay attention. Some people with dementia cannot control their emotions, and their personalities may change. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person's functioning, to the most severe stage, when the person must depend completely on others for basic activities of living."

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2019: Would a TBI count as neurocognitive dysfunction? Surgeons pre-op H&P: "He is mostly sedentary but denies shortness of breath in his activities of daily living. He does have chronic fatigue and sequelae of a traumatic brain injury. He also reports chronic headaches for which he smokes marijuana on a routine basis, but quit tobacco in 2005. **Yes capture as it fits the definition.**

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**SeqNo:** 1030
**Long Name:** Major Psychiatric Disorder
**Short Name:** PsychDisorder

**Definition:** Indicate if the patient has a major psychiatric disorder. The formal DSM IV Definition of a major psychiatric disorder includes the following features:

- A clinically significant behavior or psychological syndrome or pattern that occurs in an individual
- Is associated with present distress ( E.g. a painful symptom) or disability (i.e. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom
- Must not be merely an expectable and culturally sanctioned response to a particular event
- A manifestation of a behavioral, psychological or biological dysfunction in the individual.
- Neither deviant behavior (e.g. political, religious or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual.

To identify look for a formal psychiatric diagnosis for which the patient requires regular treatment including behavioral therapy, counseling and/or pharmaceutical treatment. Examples include depression requiring anti-depressant medication or regular counseling. Anxiety disorder, schizophrenia, bipolar disorder requiring active pharmaceutical intervention.

**Intent/Clarification: Only patients actively undergoing treatment are included.**

Examples include: Adult Attention Deficit/Hyperactivity Disorder (ADHD/ADD), Bipolar Disorder, Depression, Eating Disorders, Generalized Anxiety Disorder, Obsessive-Compulsive Disorder, Panic Disorder, Postpartum Depression, Post-traumatic Stress Disorder (PTSD), Schizophrenia, Seasonal Affective Disorder (SAD), Social Anxiety Phobia.
This is not an exhaustive or comprehensive list but an example of some disorders which would be captured here.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: Patient has documented history of depression and stopped taking Wellbutrin due to wt gain. Only treated by PCP. Is this a major psychiatric disorder? Patient has 20 year history of bulimia Nervosa and purges 3xweek on only zantac/tums. Only treated by PCP Is this a major psychiatric disorder? **Diagnosis is sufficient, just because a patient is not being treated, does not mean the disease does not exist.**
February 2020: If a patient is receiving a regular antidepressant but there is no documented hx depression, should this be a yes? A formal diagnosis must be documented. Look closer in the medical record and ask your surgeon.

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**SeqNo:** 1040
**Long Name:** Living Status
**Short Name:** LiveStat
**Definition:** Indicate the patient's living status at the time of surgery. A scale to determine the degree to which the patient lives independently or dependently with others. This is a measure of dependency and social support.

**Intent/Clarification: If the patient is homeless, select "Lives alone" as they are functioning independently.**

Harvest Codes and Value Definitions:

| Code: | Value: | Definition: |
|---|---|---|
| 1 | Lives alone | Patient lives independently without others in the home and is able to perform ADLs without assistance. |
| 2 | Lives with-family or friend | Patient lives with others in the home and is able to perform ADLs without assistance. |
| 3 | Assisted Living | Patient has assistance with activities of daily living in their home or lives in an Assisted Living facility. |
| 4 | Nursing Home | Patient resides in a Nursing Home facility. |

January 2019: Patient came from a correctional facility, an inmate - what would be the best choice among the items that we have? There is no "other" as a choice. **For these rare situations capture as # 2 Lives with family or friend.**

**SeqNo:** 1050
**Long Name:** Functional Status
**Short Name:** FuncStat
**Definition:** Indicate the patient's functional status closest to the time of surgery within the 30 days prior to surgery. This variable focuses on the patient's abilities to perform activities of daily living (ADLs) in the 30 days prior to assessment. Activities of daily living are defined as 'the activities usually performed in the course of a normal day in a person's life'. ADLs include: bathing, feeding, dressing, toileting, and mobility. The best functional status demonstrated by the patient within the 30 days prior to surgery is reported.

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

**Intent/Clarification:**

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | Independent | The patient does not require assistance from another person for any activities of daily living. This includes a person who is able to function independently with prosthetics, equipment, or devices. |
| 2 | Partially Dependent | The patient requires some assistance from another person for activities of daily living. This includes a person who utilizes prosthetics, equipment, or devices but still requires some assistance from another person for ADLs |
| 3 | Totally Dependent | The patient requires total assistance for all activities of daily living |
| 4 | Unknown | If unable to ascertain the functional status prior to surgery, report as unknown |

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**SeqNo:** 1070
**Long Name:** ECOG Score
**Short Name:** ECOGScore
**Definition:** Indicate the patient's ECOG score at the time of surgery. Eastern Cooperative Oncology Group Performance Status Score is a scale to measure the patient's functional status and the impact of the patient's disease on the functional status. It is very similar to Zubrod score but used much more

broadly in the Oncology world. The score describes the patient's level of function at the time of the evaluation.

**Intent/Clarification:** Capture the most recent ECOG score documented in the medical record prior to surgery.

Harvest Codes:

| Code: | Value | Definition |
|---|---|---|
| 0 | 0 | Fully active, able to carry on all pre-disease performance without restriction |
| 1 | 1 | Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work |
| 2 | 2 | Ambulatory and capable of all self-care but unable to carry out any work activities. Up and about more than 50% of waking hours |
| 3 | 3 | Capable of only limited self-care, confined to bed or chair more than 50% of waking hours |
| 4 | 4 | Completely disabled. Cannot carry on any self-care. Totally confined to bed or chair. |
| 5 | 5 | Dead |

November 2018: When abstracting for this field - does there have to be specific documentation of an ECOG score from the provider or can the abstractor use information in the medical record to assign a score? **It should be documented in the medical record.**

September 2019: Who can document ECOG score in the medical record? **The surgeon or oncologist can enter the ECOG score.**
February 2020: ECOG is usually only documented for oncology patients but is still required in the dcf for hiatal hernias. It is very rare that I have and ecog documented in the chart for my hiatal hernia cases. Will these cases not be analyzed? Is there any way you can remove this from the form or add a box that states its not a cancer case so that these cases will be analyzed? **Yes, ECOG is required for inclusion**. **An N/A option is being discussed for the next data version**
May 2020: For the ECOG score, is there a specific time frame of documentation we can take? For example, can we take an ECOG score that was documented outside of the surgical hospital encounter and pre-procedure evaluation over month ago prior to the surgery? **If it's the one prior to surgery, we can take what is documented. Capture the most recent. If there is no change, you can use the one at evaluation.**

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## Diagnosis (Category of Disease)

**SeqNo:** 1250
**Long Name:** Category of Disease – Primary
**Short Name:** CategoryPrim
**Definition:** Indicate the PRIMARY diagnosis (category of disease) for which the procedure was performed. For the majority of cases, there will be only one condition treated (i.e., lung cancer treated by lobectomy and lymph node dissection). Rarely, there will be cases where two unrelated conditions are treated at one time (i.e., a thymoma and a lung cancer). In these rare cases, indicate the primary or most important

diagnosis in this "Category of Disease - Primary" field, followed by the secondary or lesser diagnosis treated in the "Category of Disease - Secondary". For example, in the case of lung cancer with incidental thymoma, the primary category of disease = lung cancer, and the secondary category of disease = thymoma.

**Intent/Clarification:** Choose the primary diagnosis or reason for the procedure. Input should be based upon the final pathology report. If you entered a Category of Disease before final path, then you need to change it based on the final pathology.

Always code by the patient's diagnosis and procedure in the medical record; not by the ICD 10 and CPT codes documented by the Coders and Billers.

Example: If you start with a diagnosis of "abnormal radiological finding", a wedge resection is done and cancer is found, the diagnosis should be changed to cancer based upon the pathology report.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

January 2019: If a pathology report comes back as Thymic Follicular Hyperplasia, no staging done. What do I use for Seq 1250 category of disease? Do I just leave 2430 blank? (No staging done on path report) How do I answer seq 2450? (It is not documented on op note or path report). **If the patient did not have a thymoma or MG the case is not entered. F/U with surgeon is unclear.**
February 2019: I noticed in v2.41, the diagnosis of 209.21 carcinoid tumor of bronchus & lung, atypical and 209.61 carcinoid tumor, benign typical have been removed. Should I have been using 162.2, 162.3, or 162.5 for these if the carcinoid tumor was a primary lung? With the new version having the histology grade, I'm not sure I was entering them correctly. **This did change for this version. Code as a lung cancer - upper, middle or lower lobe. Account for carcinoid in the histology section.**
NOTE: The diagnoses Lung tumor, metastatic (197.0, C78.00), Anterior mediastinal tumor – metastatic (197.1, C78.1) and Posterior mediastinal tumor – metastatic (197.1, C78.1) will be removed from the Analyzed section in the next upgrade.
April 2019: Patient has a lobectomy for a positive CT for adenocarcinoma. Patient had no chemo or radiation prior to procedure. Final path says atypical adenomatous hyperplasia no cancer found. On an earlier FAQ your response is to consider atypical findings as positive. Do I still abstract this as positive and final path staging 1910 as no cancer found, or do I not abstract this case. The confusion is that no tumor was found and patient had no preoperative therapy**. It sounds as though this case is not lung cancer so it does not need to be collected. If collected it will not be analyzed since there is no final pathology report with lung cancer. If you choose to collect this case you would indicate Seq. 1910 as no cancer found.**
April 2019: I AM WRITING TO GET CLARIFICATION, THE DIAPHRAM DX ARE APPROVED BUT THE SURGERY ITSELF ARE UNANALYZED CASES. I HAVE LISTED THEM BELOW. CAN YOU TELL ME IF WE PUT THEM INTO THE DATABASE? APPROVED DX: Diaphragmatic hernia, with obstruction, without gangrene, Diaphragmatic hernia with gangrene, Diaphragmatic hernia without obstruction or gangrene. PROCEDURE: Diaphragmatic hernia repair (other than neonatal), traumatic; acute, Diaphragmatic hernia repair (other than neonatal), traumatic; chronic, Diaphragm; resection with simple repair (e.g., primary suture, Diaphragm; resection with complex repair (e.g., prosthetic material, local muscle flap). **The procedures you listed are not analyzed so you don't have to collect them. If the surgeons do an analyzed procedure on a pt with one of these diagnoses then it would be captured and analyzed.**
May 2019: The patient has a history of thymectomy for thymoma/thymic cancer at another facility. He returns with additional disease. His surgery includes RUL/RML wedge, pleurectomy, resection of pericardial and

diaphragmatic implants. HIs final path labels this as diffuse thymoma/thymic cancer. How would this case be captured, if at all? **This sounds like metastatic lung cancer and not primary lung cancer so this case would not analyzed.**

June 2019: The thoracic surgeon posed a question I'd like clarification on please. Was not an elective lobectomy for lung ca but an emergent operation for massive hemoptysis; does this affect the >48hrs vent support? The patient primary category of disease was hemoptysis; procedure was lobectomy; he did have tissue pathology for tumor T3N1M0. Would this procedure count as lung cancer and be included in the lobectomy for lung cancer or since it was an emergent lobectomy for hemoptysis does it get put in a different category? Please let me know if you require more details. **You can still capture this case but it would not go into the analysis. The hemoptysis is likely secondary to lung cancer. Select lung cancer as the primary diagnosis.**

June 2019: Patient had VATS lung biopsies with pre-operative diagnosis of "Diffuse infiltrative disease". Pathology report stated the lung biopsies were "Chronic granulomatous inflammation and calcification with giant cell formation". What would be correct pre-operative diagnosis? **This is not a lung cancer case; does not need to be collected. Non-analyzed case. F/u with your surgeon on which dx to use.**

June 2019: Patient with a history of symptomatic Myasthenia Gravis confirmed by positive acetyl binding Ab with CT evidence of a Anterior Mediastinal Mass consistent with Thymoma. Multiple diagnosis codes are listed in the medical record making selection difficult. Which diagnostic code is the most appropriate primary diagnosis? -Pre-Op diagnosis of Myasthenia Gravis (G70.00) and Anterior Mediastinal Mass, Thymoma (C37) -Brief Op Note diagnosis of Benign Neoplasm of Thymus [Thymoma] (D15.0); -Op Note diagnosis of Mass in Chest, specifically Mediastinal Mass (786.6); -Pathology diagnosis of Benign Neoplasm of Thymus (D15.0) with Tumor Staging (Stage I) and WHO Classification (Type B1) **Sounds like Anterior Mediastinal Mass, Thymoma; should confirm with surgeon.**

August 2019: Need some clarification. On Page 54 of the Training manual there is "Note: The diagnoses Lung tumor - metastatic (197.0, C78.00), Anterior mediastinal tumor - metastatic....will be removed from the analyzed section in the next upgrade. Also FAQ May 2019 The question refers to metastatic cancer and the response is "This sounds like metastatic lung cancer and not primary lung cancer so this case would not analyzed." Are we to capture metastatic cases now? **No, metastatic cases are NOT to be collected. In the FAQs you site the responses provided state that we will be removing the 'metastatic' cases from the Analyzed section in the next version of the DCF and a case that is not primary lung cancer, but sounds like metastatic cancer, we say should not be analyzed because it is metastatic cancer.**

September 2019:

I am entering this non-analyzed case and not sure if this is the correct diagnosis codes to use?:
POSTOPERATIVE DIAGNOSES:
1. Hiatal hernia with refractory reflux regurgitation.- Use Diaphragmatic hernia without obstruction or gangrene (553.3, K44.9)?? **Yes**
2. Mediastinal mass, consistent with lipoma. – Use Swelling, mass or lump in chest (786.6, R22.2)??
**If consistent with a lipoma will not go into the Mediastinal Mass / thymectomy. Yes, non – Analyzed procedure.**

February 2020: Patient had a re-do Laparoscopi Nissen fundolication. PREOP DX: Herniated and partially undone Nissen fundoplication. PROCEDURE: Laparoscopic Nissen fundoplication,however, this was at top of operative report: Procedure: LAPAROSCOPIC REDUCTION OF HERNIATED FUNDOPLICATION AND REDO NISSEN. EGD report suspects hiatal hernia, GERD is documented in various progress notes and from EGD report. I did not see that a diaphragmatic hernia was repaired in operative note, only a Lap Nissen fundoplication was

performed. What would be pre-operative diagnosis? **Diaphragmatic hernia is the primary category of disease. The nissen wrap herniated through the diaphragm.**

## Trachea

Dysphagia, unspecified (787.2, R13.10): Dysphagia is difficulty swallowing. It may be caused by esophageal disorders, central nervous system pathology or neuromuscular disorders.

Tracheomalacia-congenital (748.3, Q32.0): Refers to a condition in newborns whose tracheal cartilage lacks its usual rigid structure. This leads to airway obstruction during expiration and infants will present with difficulty breathing and inability to clear secretions.

Tracheomalacia-acquired (519.1, J39.8): Condition in which the normal rigid tracheal cartilage becomes soft and flaccid. This may be due to changes in the airway as a result prolonged endotracheal intubation.

Tracheostenosis-congenital (748.3, Q32.1): A process present in newborns in which the normal tracheal, and sometimes bronchial, airway diameter is significantly narrowed. The amount of airway involvement can vary from case to case. Newborns or infants can present with stridor or difficulty in breathing or feeding.

Tracheostenosis-acquired postintubation (519.1, J39.8): Refers to narrowing of the normal tracheal diameter often by scar tissue formed from prolonged endotracheal intubation. Afflicted patients typically present with shortness of breath and stridor.

Tracheostomy-hemorrhage (519.09, J95.01): Describes excessive bleeding as a result of a tracheostomy tube. This may be due to granulation tissue within the airway or may represent the presence of a communication between the trachea and innominate artery or tracheoinnominate fistula.

Tracheostomy related stenosis (519.02, J95.03): Refers to the process when the trachea is narrowed at the location of a healed tracheostomy stoma.

Tracheal tumor, malignant (162.0, C33): Describes conditions where primary cancer develops within the trachea. Primary malignant tracheal tumors are often either squamous cell cancers or adenoid cystic carcinomas. Other malignant tumors of the trachea include sarcomas and mucoepidermoid carcinomas.

Tracheal tumor, benign (212.2, D14.2): These are lesions that originate from the trachea itself and are not considered cancers. Chondromas, leiomyomas, and adenomas are some examples of benign tracheal tumors.

Tracheal tumor, metastatic (197.3, C78.30): A process when cancers of distant sites can occasionally spread to the trachea and lead to airway obstruction or bleeding. Renal cell carcinomas, breast cancers, and melanomas can metastasize to the airway.

## Larynx

Subglottic stenosis-congenital (748.3, Q31.1): This refers to a condition of narrowing of the subglottic larynx in the absence of an identifiable cause such as prior endotracheal intubation.

Subglottic stenosis-acquire (post intubation) (478.74, J38.6): Patients who have been intubated with either an oral endotracheal tube or a tracheostomy tube can develop narrowing of their subglottic larynx due to airway irritation and scarring. Airway narrowing may lead to stridor and shortness of breath.

Vocal cord paralysis unspecified (478.3, J38.00): This refers to a complication of thoracic surgery where the patient's vocal mechanism is impaired due to trauma to the nerve supply to the larynx. Paralysis of a vocal cord may lead to voice changes and may predispose a patient to aspiration.

Vocal cord paralysis, unilateral (478.31, J38.01): One of the two vocal cords is immobile or has extremely limited movement. This often impacts speech and swallowing.

Vocal cord paralysis, bilateral (478.33, J38.02): Both vocal cords are immobile, often stuck partially open. This impacts speech and can lead to difficulty swallowing and aspiration.

**Lung**

Lung tumor, metastatic (197.0, C78.00): This condition includes all cancers of the body that spread to the lungs. A primary lung cancer may metastasize to a different lobe of the lung and be considered a metastatic lung tumor.

Lung tumor, benign (212.3, D14.30): These are masses within lung tissue that are not malignant. They can grow, but rarely cause symptoms. Benign lung tumors include hamartomas, chondromas, and fibromas.

Lung cancer, main bronchus, carina (162.2, C34.00): This is a condition where a centrally-located lung cancer becomes locally advanced and involves either the right/left main bronchus or carina. Surgical resection involves removing involved airway and lung and may require removing a portion of the central airway as well.

Lung cancer, upper lobe (162.3, C34.10): This refers to a primary lung cancer, located within either the right or left upper lobes.

Lung cancer, middle lobe (162.4, C34.2): This refers to a primary lung cancer located within the right middle lobe.

Lung cancer, lower lobe (162.5, C34.30): This refers to a primary lung cancer located within either the right or left lower lobe.

Lung cancer, location unspecified (162.9, C34.90): This code should be used when the exact origin of the primary lung cancer cannot be exactly determined due to large size or when the location was not specifically documented by the surgeon.

Lung abscess (513.0, J85.2): Represents an infectious condition of the lung when a collection of infected material develops within the substance of the lung.

Pneumothorax (512.8, J93.1): This is a process that occurs when the lining of the lung parenchyma is disrupted and air leaks into the pleural space (the space between the lung and rib cage). This leads to varying degrees of lung collapse and subsequent symptomatology. In its most severe form, this can lead to acute respiratory failure.

Bronchiectasis (494.0, J47.9): Refers to a localized, irreversible dilation of the bronchial tree. Patients can present to their physicians with recurrent respiratory infections and significant airway bleeding as a result.

Empyema with fistula (510.0, J86.0): This describes an infectious process within the pleural space with evidence of a communication between the bronchial tree within the lung and the pleural space. Treatment involves appropriate antibiotics with drainage of the pleural infection and correction of the bronchopleural fistula.

Empyema without fistula (510.9, J86.9): This describes an infectious process within the pleural space without evidence of a communication between the bronchial tree within the lung and the pleural space. Pleural infection is usually due to pneumonia within the lung tissue. Treatment involves appropriate antibiotics with drainage of the pleural infection.

Emphysema (492.8, J43.8): Is a form of chronic obstructive pulmonary disease (COPD) characterized by loss of elasticity of the lung tissue. This results in air-trapping and over distended lung tissue leading to shortness of breath and impaired gas exchange.

Emphysematous bleb (492.0, J43.9): This refers to a collection of air within the lung tissue due to rupture of the alveolar space. These can be either single or multiple and can enlarge to the point of significantly compressing normal lung tissue resulting in shortness of breath.

Interstitial lung disease/fibrosis (516.3, J84.1): Refers to a number of conditions that lead to the progressive scarring of lung tissue. This scarring results in significant respiratory dysfunction and in its most severe form can lead to respiratory failure. In general, the scarring is irreversible.

Pneumonia (486, J18.9): Acondition in which a portion of the lung is involved with an active infection. These can be due to bacterial, viral, or fungal organisms. Treatment is aimed at identifying the causative etiology and initiating appropriate antimicrobial therapy.

Pulmonary insufficiency following surgery/trauma (ARDS) (518.5, J95.82): This refers to a diffuse inflammatory process that typically involves all lung tissue. This condition can lead to severe impairment of gas exchange within the lung.

Hemothorax (511.8, J94.2): The presence of blood within the pleural space. This may be due to a traumatic event with damage to the chest wall or lung. Treatment may require drainage with a chest tube or surgical intervention to address the bleeding source.

Acute respiratory failure (518.81, J96.00): New onset of pulmonary dysfunction resulting in inadequate ventilation and gas exchange. Causes may include airway obstruction, damaged lung tissue, decreased respiratory drive or failure of the muscles that control breathing.

Aspergillosis (117.3, B44.9): This is a fungal infection caused by aspergillus, a common mold. It can be seen in persons with compromised immune function.

Cystic fibrosis with pulmonary manifestations (277.02, E84.0): CF is a life threatening genetic disease leading to production of thick, tenacious mucous resulting in frequent pulmonary congestion and infections. It also impacts digestive enzymes and function.

Gangrene and necrosis of lung (513.0, J85.0): Death of lung tissue due to loss of blood supply. Primary causes include: pneumonia, pulmonary embolism, neoplasm (tumor). Secondary causes include: trauma, surgery disrupting blood supply, lobar torsion, septic emboli, systemic infection, and lung toxicity of chemotherapeutic agents, radiation effect, and foreign body aspiration. Treatment and prognosis depend on the etiology and extent of lung damage.

Solitary pulmonary nodule (not a tumor, e.g., granuloma, subpleural lymph node, pulmonary infarct) (793.11, R91.1): A solitary pulmonary nodule is defined as a discrete, well-marginated, rounded opacity less than or equal to 3 cm in diameter that is completely surrounded by lung parenchyma, does not touch the hilum or mediastinum, and is not associated with adenopathy, atelectasis, or pleural effusion. Lesions larger than 3 cm are considered masses and are have a higher risk of malignancy.

Malignant neoplasm other parts of bronchus or lung (162.8, C34.8): Malignant (cancerous) tumor in a location not otherwise listed.

Neoplasm of uncertain behavior of trachea, bronchus and lung (235.7, DM38.1): Lesion in trachea, bronchus or lung without a definitive diagnosis.

Personal history of malignant neoplasm of bronchus and lung (V10.11, Z85.118): History of cancer of the bronchus and lung.

Post inflammatory pulmonary fibrosis (515, J84.89): Post-inflammatory pulmonary fibrosis is a condition in which the tissues in the lungs thicken or become scarred. The lung tissues also become rigid, which makes breathing difficult. As post-inflammatory pulmonary fibrosis advances, lung tissue becomes more damaged and shortness of breath worsens. Post-inflammatory pulmonary fibrosis typically occurs after an infection that causes serious damage to the lung tissues. There is no cure for post-inflammatory pulmonary fibrosis, but medications like corticosteroid drugs may be helpful in managing inflammation and swelling. Damage to the lungs caused by post-inflammatory pulmonary fibrosis is permanent, and those with significant damage may need a lung transplant.

Primary pulmonary hypertension (416.0, I 27.0): Primary pulmonary hypertension (PPH) is a rare disease characterized by elevated pulmonary artery pressure with no apparent cause. PPH is also termed pre-capillary pulmonary hypertension or, as is currently preferred, idiopathic pulmonary arterial hypertension (IPAH). Untreated IPAH leads to right-sided heart failure and death.

Pulmonary sequestration (748.5, Q33.2): Pulmonary sequestration (also called accessory lung) refers to aberrant formation of segmental lung tissue that has no connection with the bronchial tree or pulmonary arteries. It is a bronchopulmonary foregut malformation (BPFM).

Transplanted lung complication(s) (996.84, T86.8XX): Some complications are related to the operation itself, others are a result of immunosuppressive medication, which is needed to prevent rejection. Complications may include bleeding, rejection, bronchiolitis obliterans syndrome, post-transplantation lymphoproliferative disorder, infection, or side effects of long term use of immunosuppressants.

## Mediastinum

Mediastinitis (519.2, J98.5): Refers to either acute or chronic inflammation of the mediastinum. Acute mediastinitis is usually due to a bacterial infection from a perforation of the esophagus or due to sternal wound infections after cardiac surgery procedures. Treatment often requires antibiotics and surgical drainage. Chronic mediastinitis represents a fibrosis of the mediastinum and can be a result of radiation therapy or previous infection with histoplasmosis or tuberculosis.

Mediastinal nodes, metastatic (196.1, C77.1): Refers to a process where cancers within the chest, or from other locations, spread to the lymph nodes within the mediastinum. These lymph nodes can be biopsied via mediastinoscopy.

Mediastinal nodes, benign (229.0, D36.0): Describes a condition where mediastinal lymph nodes demonstrate a benign or non-malignant process such as sarcoidosis or anthrocosis. These conditions may result in the enlargement of the involved lymph nodes.

Anterior mediastinal tumor, primary (germ cell cancer, seminoma) (164.2, C38.1): Refers to tumors of the mediastinum which are classified as either seminomas or nonseminomatous germ cell tumors of the mediastinum. These tumors often cause symptoms due to their size and resulting compression of heart, lung, or airway.

Anterior mediastinal tumor-metastatic (197.1, C78.1): Cancers from other locations can occasionally spread to the anterior mediastinum. These can originate from the lung, esophagus, breast, or other location and spread to the mediastinum via the lymphatic system.

Anterior mediastinal tumor-benign (e.g., teratoma) (212.5, D15.2): A teratoma is often a benign tumor which can be located within the anterior mediastinum. This tumor consists of normal types of cells, but in an abnormal configuration and location. They can produce symptoms from their large size and are treated with surgical resection.

Anterior mediastinal tumor-thymus tumor (thymoma, thymic carcinoma) (164.0, C37): The thymus gland is located within the anterior mediastinum and serves a role in the development of the immune system. Tumors of the thymuscan range from less aggressive thymomas to very malignant thymic carcinomas.

Lymphoma, intrathoracic (202.82, C85.92): Lymphomas are a type of cancer that arises from cells of the immune system or lymphocytes. Thoracic surgeons are often involved in obtaining tissue via mediastinoscopy to assist medical oncologists in making the diagnosis of lymphoma. The treatment of these conditions centers on the use of chemotherapy.

Posterior mediastinal malignant tumor-primary (164.3, C38.2): These are malignant tumors located in the posterior third of the mediastinum between the posterior pericardium and spine. Malignant tumors in this location are rare and predominantly malignant neurogenic tumors.

Posterior mediastinal tumor-metastatic (197.1, C78.1): These are unusual occurrences where cancers from other locations can metastasize to the posterior mediastinum.

Posterior mediastinal tumor-benign (i.e., neurogenic tumor) (212.5, D15.2): These are masses that arise from peripheral nerves or the sympathetic ganglia. These typically are slow-growing lesions that are asymptomatic. Schwannomas and neurofibromas are the usual tumor types.

Myasthenia gravis (358.0, G70.00): This is a neuromuscular disease caused by antibodies generated in one's own body. These antibodies lead to muscle weakness, fatigue, and occasionally respiratory failure. This condition is associated with thymoma and patients may gain significant symptom improvement with resection of a thymoma or even a normal thymus gland.

Mediastinal cyst, bronchogenic (519.3, J98.5): Is the most common mediastinal cyst. These are thin walled cavities lined with respiratory epithelium and can cause symptoms due to their size or become infected. Surgical resection may involve removal of the cyst alone or may require concomitant lung resection.

Mediastinal cyst, foregut duplication (519.3, J98.5): These are benign cyst originating from and attached to the intrathoracic esophagus. These may be asymptomatic or associated with dysphagia due to compression of the adjacent esophagus. Removal requires simple resection of the cyst.

Mediastinal cyst, pericardial (519.3, J98.5): These are unusual cysts arising from the pericardium. Treatment, when necessary, may involve CT-guided needle aspiration and recurrences are treated with simple cyst excision.

Mediastinal cyst, thymic (519.3, J98.5): This describes cystic lesions within the thymus gland. They can be associated with thymomas and rarely cause symptoms.

Benign neoplasm of thymus (212.6, D15.0): Benign tumors of the thymic gland are relatively rare. Although most of these lesions are asymptomatic in nature, they may result in respiratory distress.

Mediastinal abscess (513.1, J85.3): An infection manifested by a collection of pus in the mediastinal space.

Neoplasm of uncertain behavior of pleura, thymus, mediastinum (235.8, D38.2-D38.4): Tumor of the pleura, thymus or mediastinum without a definitive diagnosis.

Unspecified disease of thymus gland (254.9, E32.9): Disease of the thymus gland not otherwise listed.

## Thyroid

Goiter, nodular (241.9, E04.9): This describes a condition of an enlarged thyroid gland which may be due to dietary deficiencies in iodine or autoimmune inflammation. Symptoms may occur due to excessive thyroid enlargement which can result in tracheal and esophageal compression.

Thyroid neoplasm, malignant (193.0, C73): This condition refers to cancers that arise within the thyroid gland. Occasionally these cancers can enlarge and invade the underlying trachea which can result in airway obstruction or bleeding.

Thyroid neoplasm, benign (226.0, D34): An overwhelming majority of nodules that arise within the thyroid gland are benign tumors. Fine needle aspiration of thyroid nodules can often distinguish whether they are benign or malignant.

## Pleura

Pleural effusion, sterile (511.9, J90): This is a condition where fluid accumulates in the space between the lung and chest wall. This type of fluid is not due to cancer in the pleura nor is it infected.

Pleural effusion, infected (empyema) (511.1, J86.9): Empyema describes a situation where infected fluid is present in the pleural space. This condition requires chest tube or surgical drainage for successful treatment.

Pleural effusion, malignant (197.2, C78.2): Cancers from the chest or from elsewhere can spread to the pleural lining of the chest wall. This often, in turn, results in the production of excessive fluid within the pleural space. Patients may present complaining of chest pain and difficulty breathing. Treatment may involve sclerosis of the pleural space.

Pleural tumor, malignant (e.g., mesothelioma) (163.9, C38.4): Malignant mesothelioma is an aggressive type of cancer that originates from cells that line the pleural space. Asbestos exposure is a known risk factor for the development of this malignancy. Chemotherapy, surgery, and radiation therapy are often employed in the treatment of this disease.

Pleural tumor, metastatic (197.2, C78.2): Cancers of the lung, breast, ovary, and kidney can spread to the pleura lining the chest wall and present as a pleural nodule or tumor.

Pleural tumor, benign (212.4, D19.0): Rarely, a benign tumor of the pleura can develop. These are typically classified as benign fibrous tumors of the pleura and have no known association with asbestos exposure. They are usually discovered as incidental lesions on a chest x-ray or CT scan. Treatment involves simple surgical excision.

Pleural thickening (511.0, J94.9): This describes a nonspecific finding on a chest x-ray or CT scan. Pleural thickening may be due to pleural plaques or calcified lesions which are frequently seen in patients with asbestos exposure.

Pleural effusion, other specified, except TB (511.89, J90): Pleural effusion is excess fluid that accumulates in the pleural cavity, the fluid-filled space that surrounds the lungs. Code effusions other than infection, malignant, sterile or those caused by tuberculosis here. These may include those caused by autoimmune diseases or medications.

Malignant neoplasm other specified sites of pleura (163.8, C38.4): Malignant neoplasm (cancerous tumor) of contiguous or overlapping sites of pleura whose point of origin cannot be determined

Empyema, tuberculosis (A15.6): a chronic, active infection of the pleural space that contains a large number of tubercle bacilli

Pleural effusion, TB (tuberculous pleurisy) (012.0, A15.6): Extrapulmonary tuberculosis, tuberculous pleural effusion is synonymous with the term tuberculous pleurisy.

## Chest Wall

Pectus excavatum (754.81, Q67.6): Represents the most common congenital abnormality of the chest wall. Atypical rib and cartilage growth leads to the caved-in or concave appearance of the anterior chest. Some degree of cardiopulmonary impairment may be present in severe cases.

Pectus carinatum (754.82, Q67.7): Another congenital chest wall abnormality in which abnormal rib and cartilage growth leads to protrusion abnormalities of the anterior chest. No certain cardiopulmonary abnormalities are known to be caused by this deformity. Heart valve abnormalities have been found to be associated with this condition.

Sternal tumor, malignant (170.3, C41.3): A variety of primary malignant tumors of the sternum have been described. A majority of these are of the soft tissue sarcoma origin and many are thought to be related to previous external bean radiation therapy. Treatment often consists of radical resection of the sternum with complex reconstruction.

Sternal tumor, metastatic (198.5, C79.51): This refers to the development of cancers within the sternum that are tumors that have originated from other locations in the body. Surgical resection for metastatic disease to the sternum is rare, but can be considered in well-selected instances.

Sternal tumor, benign (213.3, D16.7): Benign tumors of the sternum are quite unusual. Osteochondromas are the most common type of benign sternal tumor.

Rib tumor, malignant (e.g., osteosarcoma, chondrosarcoma) (170.3, C41.3): Primary cancers of the chest wall can originate from the ribs. Chondrosarcoma is the most common primary malignant tumor of the chest wall. These cancers typically require extensive chest wall resection with complex reconstructive techniques. Malignant rib tumors can spread to other sites within the body.

Rib tumor, metastatic (198.5, C79.51): Cancers from distant sites can spread to bone and the ribs are a frequent site of bony metastases. Occasionally, rib resection is performed to determine the nature of a metastatic rib tumor. When symptomatic, metastatic rib tumors frequently cause pain at their location.

Rib tumor, benign (e.g., fibrous dysplasia) (213.3, D16.7): It is often difficult to distinguish benign from malignant rib tumors without removing the mass and examining its cellular characteristics. Several benign rib tumors exist and include chondromas, osteomas, and fibrous dysplasia to name a few.

Thoracic outlet syndrome (353.0, G54.0): This refers to a constellation of physical signs and symptoms related to compression of the brachial plexus and subclavian artery and vein. This can be caused by abnormalities of the first rib, clavicle, and musculature surrounding the brachial plexus and subclavian vessels as they travel out from the chest to supply the arm. Surgical intervention may be necessary to relieve the anatomic compression and improve symptoms.

## Diaphragm

Diaphragmatic paralysis (519.4, J98.6): Each hemidiaphragm is innervated by its respective phrenic nerve. Diaphragmatic paralysis can occur when there is injury to a phrenic nerve during a surgical procedure or secondary to a viral illness. Patients that suffer from high spinal cord injuries may be ventilator dependent as the innervation of both phrenic nerves becomes compromised by their spinal injury.

Diaphragm tumor, malignant (171.4, C49.3): Primary malignant tumors of the diaphragm are quite rare.

Diaphragm tumor, metastatic (198.89, C79.89): Cancers from other sites can spread to the chest and involve the pleura as described. When this occurs, diaphragmatic involvement is usually encountered.

Diaphragm tumor, benign (215.4, D21.3): These are extremely rare tumors, but can include the same types of benign tumors seen elsewhere in the body. One type of benign diaphragmatic tumor is a lipoma.

Diaphragmatic hernia with obstruction, without gangrene (552.3, K44.0): A diaphragmatic hernia is a defect or hole in the diaphragm that allows the abdominal contents to move into the chest cavity, in this case leading to gastrointestinal obstruction without development of gangrene.

Diaphragmatic hernia with gangrene (551.3, K44.1): A diaphragmatic hernia is a defect or hole in the diaphragm that allows the abdominal contents to move into the chest cavity, in this case leading to ischemia of tissue and development of gangrene.

Diaphragmatic hernia without obstruction or gangrene (553.3, K44.9): A diaphragmatic hernia is a defect or hole in the diaphragm that allows the abdominal contents to move into the chest cavity, in this case without gastrointestinal obstruction or development of gangrene.

## Esophagus

Esophageal cancer, lower third (150.5, C15.5): This is the most common location of esophageal cancers in the United States and its incidence is steadily increasing. Lesions here are typically adenocarcinoma- and are often treated by a combination of surgery, chemotherapy, and radiation therapy.

Esophagus cancer, middle third (150.4, C15.4): Refers to carcinomas arising in the mid-thoracic esophagus. These are usually squamous cell carcinomas.

Esophagus cancer, upper third (150.3, C15.3): These carcinomas arise from the esophagus located within the lower neck and upper chest.

Esophageal cancer, esophagogastric junction (cardia) (151.0, C16.0): Describes cancers that are located with the junction between the esophagus and stomach and involve a portion of the cardia or upper part of the stomach.

Esophageal tumor, benign (i.e., leiomyoma) (211.0, D13.0): This includes a variety of tumors that can exist within the esophagus, but no not spread to adjacent lymph nodes or other parts of the body. Patients can present with difficulty in swallowing. Surgical resection of the tumor alone often results in significant symptomatic improvement.

Esophageal stricture (530.3, K22.2): Refers to a process in which the lumen of the esophagus is narrowed by a non-malignant condition. This may result from a caustic substance that was ingested or chronic inflammation due to GERD. Endoscopic dilation may improve symptoms of obstruction, but surgery is sometimes necessary.

Barrett's esophagus (530.85, K22.70): Is a condition where the normal lining of esophagus is altered due to the presence of reflux of acid from the stomach. Barrett's esophagitis increases the risk of developing esophageal adenocarcinoma.

Achalasia of the esophagus (530.0, K22.0): Describes a motility disorder of the esophagus that results in progressive difficulty in swallowing. The exact cause of achalasia is not known in most cases. Surgery aimed at dividing the inner circular muscular layer of the esophagus is usually very effective in addressing this problem.

Esophageal perforation (530.4, K22.3): Refers to a full thickness violation in the wall of the esophagus. This disruption leads to contamination of the mediastinum and often pleural space and can be fatal if not addressed properly. Perforation may be due to an esophageal, endoscopic procedure or severe vomiting.

Zenker's diverticulum (530.6, K22.5): Describes an out-pouching of the esophagus within the neck that occurs as a result of an abnormally functioning upper esophageal sphincter. This out pouching can entrap ingested food and lead to difficulty swallowing and aspiration. Treatment is directed at correction of the overactive muscle.

Epiphrenic diverticulum (530.6, K22.5): This refers to an esophageal out pouching that develops just above the level of the diaphragm. This usually occurs due to an overactive lower esophageal sphincter. Patients can experience difficulty swallowing and the regurgitation of undigested food.

Gastroesophageal reflux (GERD) (530.81, K21.9): Is defined by the presence of abnormal acid and/or bile exposure of the esophaguse due to l reflux of stomach contents. Symptoms include heartburn, regurgitation, and difficulty swallowing (dysphagia).

Tracheoesophageal fistula (530.84, J86.0): Refers to an abnormal communication between the esophagus and airway. This can be a congenital lesion that is diagnosed shortly after birth. In adults, this abnormality is frequently due to esophageal cancer that locally invades the trachea. Lung contamination from the esophageal contents results in infectious complications.

Gastric outlet obstruction, pyloric stenosis, acquired (537.0, K31.1): This condition describes an abnormality within the outlet of the stomach to the small bowel. The cause of this condition is unknown. Obstruction of the stomach can result in excessive emesis and malnutrition. Pyloric obstruction can be seen after esophageal surgery due to interruption of neural input to the stomach and pylorus. Endoscopic dilatation of the pylorus is often effective in dealing with this problem.

Acquired absence of esophagus (post-esophagectomy) (V45.79, Z90.89): There are instances in which a patient will undergo an emergent esophagectomy without immediate reconstruction. Patients who are extremely ill due to esophageal perforation with prolonged thoracic contamination may need to return to the operating room at a later date to have continuity of their gastrointestinal tract restored. This diagnostic code describes such a patient.

Barrett's esophagus with High Grade Dysplasia (530.85, K22.711): High grade dysplasia (HGD) refers to precancerous changes in the cells of the esophagus. Gastroesophageal reflux disease (GERD) can be complicated by Barrett's esophagus (BE), a change in the normal esophageal cells to intestinal-like cells. BE cells can become abnormal or dysplastic. HGD significantly increases a person's risk for esophageal

adenocarcinoma. When someone is diagnosed with HGD, an intervention is advised including endoscopic resection, ablation or in some cases, esophagectomy is recommended for treatment.

Dyskinesia/spasm of esophagus (530.5, K22.4): This is a hypermotility disorder of the esophagus that is characterized by spastic non-peristaltic esophageal. Common symptoms include chest pain and difficulty swallowing (dysphagia). It may include disorders affecting the motor function of the upper esophageal sphincter, lower esophageal sphincter, the esophageal body, or a combination of these parts. Other disorders include hypermotility (spastic disorders) and markedly increased amplitude in contraction (nutcracker esophagus).

Esophagitis (530.1, K20.9): Esophagitis is a term used to describe inflammation, irritation or swelling of the esophagus. There are several types of esophagitis depending on the cause. Esophagitis can be caused by infection, irritation of the esophagus, or inflammation of the lining of the esophagus.

Foreign body esophagus (935.1, T18.108a): An esophageal foreign body is any object that does not belong in the esophagus.

Malignant neoplasm stomach unspecified (151.9, C16.9): Cancerous tumor of the stomach, location and type not specified

Malignant neoplasm of the esophagus, unspecified (150.9, C15.9): Cancerous tumor of the esophagus, location and type not specified

Malignant other part esophagus, specified (150.8, C15.8): Cancer in part(s) of the esophagus not otherwise listed

Mallory Weiss tear (530.7, K22.6): Mallory-Weiss syndrome is characterized by upper gastrointestinal bleeding secondary to longitudinal mucosal lacerations (known as Mallory-Weiss tears) at the gastroesophageal junction or gastric cardia. This may result from persistent retching and vomiting or after any event that provokes a sudden rise in intragastric pressure.

Reflux esophagitis (530.11, K21.0): Reflux esophagitis is an esophageal mucosal inflammation that occurs secondary to retrograde flux of gastric contents into the esophagus. Clinically, this is referred to as gastroesophageal reflux disease (GERD). Typically, the reflux disease involves the distal 8-10 cm of the esophagus and the gastroesophageal junction.

Stricture and stenosis of esophagus (530.3, K22.2): E**sophageal stricture** or stenosis is narrowing or tightening of the internal diameter of the esophagu**s** resulting in swallowing difficulties.

Ulcer esophagus with bleeding (530.21, K22.11): An esophageal ulcer is a defect in the lining of the esophagus. Esophageal ulcers can be caused by: GERD (gastroesophageal reflux disease), infection of the esophagus, irritants that damage the esophagus, excessive vomiting, chemotherapy or radiation. Bleeding may be acute or chronic.

Ulcer esophagus without bleeding (530.2, K22.10): An esophageal ulcer is an open sore in the lining of the esophagus. Esophageal ulcers can be caused by: GERD (gastroesophageal reflux disease), infection of the esophagus, irritants that damage the esophagus, excessive vomiting, chemotherapy or radiation.

Other digestive system complication (997.49, K91.XX): Any adverse event involving the digestive system not otherwise listed.

Other disease of the esophagus (530.89, K22.8): Other disease or condition of the esophagus not listed.

**Trauma**

Rib fracture (807.0, S22.39xa): Injury to the chest wall may result in rib fractures. Alone, these injuries are usually self-limited. However, rib fractures can cause a pneumothorax or hemothorax.

Sternal fracture (807.2, S22.20xa): These can be caused by blunt trauma to the chest and may herald more serious injuries. If significantly displaced, surgical fixation may be necessary.

Flail chest (807.4, S22.5xxa): Describes a condition when a segment of ribs becomes separated from the rest of the chest wall as a result of multiple rib fractures. Patients often experience respiratory compromise as a result of impaired breathing mechanics.

Tracheal injury (807.5, S12.8xxa): This life-threatening injury may be due to blunt or penetrating trauma to the neck or chest. Airway obstruction can result as a consequence. Surgical intervention is often required to address the airway injury.

Traumatic pneumothorax (860.0, S27.0xxa): Collapse of a lung may occur as a result of either blunt or penetrating trauma to the chest. Chest tube placement is frequently needed to drain the pleural space.

Rib fractures, multiple (807.0, S22.49xa): Fractures involving more than one rib, typically caused by trauma

**Cardiovascular**

Pericarditis with effusion (420.9, I30.9): Inflammation of the pericardium may lead to accumulation of fluid within the pericardial sac. This fluid may cause cardiac dysfunction and require a percutaneous drainage procedure or creation of a pericardial window.

Pericardial effusion, malignant (198.89, C79.89): This occurs when malignant cancers spread to the lining of the pericardium and result in the buildup of fluid within the pericardial sac.

SVC syndrome (459.2, I87.1): The superior vena cava (SVC) can be compressed by tumors of the mediastinum, lung cancers, or mediastinal lymphadenopathy. Obstruction of the venous drainage of the arms, upper chest, and head often leads to severe swelling and engorged superficial veins. Therapy is aimed at restoring blood flow through this obstruction.

Abdominal aneurysm without rupture (441.4, I171.4): Dilatation, expansion or bulging of the abdominal aorta without leakage of blood into a false lumen or outside the vessel wall

Cardiac tamponade (423.3, I31.4): Collection of blood or fluid in the pericardial space which compresses the chamber walls of the heart preventing normal filling. This impairs cardiac output and requires immediate intervention.

Pericarditis, constrictive (432.2, I31.1): Constrictive pericarditis is long-term (chronic) inflammation of the sac-like covering of the heart (the pericardium) with thickening, scarring, and muscle tightening (contracture) leading to disruption of cardiac function.

Unspecified disease of the pericardium (423.9, I31.9): Pericardial condition or disease not otherwise listed.

**Miscellaneous**

Hyperhidrosis, focal, axilla (705.21, L74.510): Hyperhidrosis is a condition characterized by excessive sweat production. It may involve the hands, axillae, or feet. Disruption of the sympathetic chain via thoracoscopic techniques is a treatment option.

Hyperhidrosis, focal, face (705.21, L74.511): Hyperhidrosis is a condition characterized by excessive sweat production. It may involve the hands, axillae, or feet. Disruption of the sympathetic chain via thoracoscopic techniques is a treatment option.

Hyperhidrosis, focal, palms (705.21, L74.512): Hyperhidrosis is a condition characterized by excessive sweat production. It may involve the hands, axillae, or feet. Disruption of the sympathetic chain via thoracoscopic techniques is a treatment option.

Lymphadenopathy (785.6, R59.9): This refers to enlargement of a lymph node or group of lymph nodes and may be due to benign processes or metastatic cancer.

Abnormal radiologic finding (793.1, R91): This is a generalized explanation to describe atypical imaging results reported by a radiologist. Abnormal radiologic findings may initiate diagnostic procedures to determine the exact nature of the lesion identified.

Chronic airway obstruction not elsewhere classified (496, J44.9): Includes COPD

Chylothorax (457.8, 189.8): Chylothorax refers to the presence of lymphatic fluid in the pleural space secondary to leakage from the thoracic duct or one of its main tributaries.

Disruption of internal operation, surgical wound (998.31, T81.32XA): Disruption or dehiscence of closure of: fascia, superficial or muscular, muscle or muscle flap, ribs or rib cage, or sternum or sternotomy. Do not assign this code when the surgeon purposely leaves the wound open.

Hemorrhage complicating a procedure (998.11, multiple codes): Bleeding related to the surgical procedure. Do not assign hemorrhage as a complication of a procedure when the blood loss is from the disease itself, such as bleeding esophageal varices or angiodysplasia.

Hematoma complicating a procedure (998.12, multiple codes): A hematoma is a localized collection of blood outside the blood vessels, usually in liquid form within the tissue in this case resulting from a surgical procedure. The lay term is a bruise.

Hemoptysis unspecified (786.3, R04.2): Hemoptysis is the coughing up of blood or bloody sputum from the lungs or airway. It may be either self-limiting or recurrent. Hemoptysis can be caused by a range of disorders:

infections (pneumonia; tuberculosis; aspergillosis; and parasitic diseases), tumors that erode blood vessel walls, cocaine abuse, trauma, vascular disorders, bronchitis, foreign bodies in airway, coagulopathies, or as a result of invasive procedures.

Other non-infectious disorders of lymphatic channels (457.8, I89.8): Condition of lymphatic system not related to infection or otherwise listed

Malignant neoplasm of connective tissue and other soft tissue of the thorax (171.4, C49.3): Cancerous tumor of connective tissue, cartilage, fascia, fat, muscle of the thorax, excluding breast neoplasms

Malignant poorly differentiated neuroendocrine carcinoma, any site (209.3, C74.1): Neuroendocrine tumors are a heterogeneous group of solid tumors that originate from neuroendocrine cells found throughout the body.

Non-healing surgical wound (998.83, T81.89XA): A non-healing or chronic wound is defined as a wound that does not improve after four weeks or does not heal in eight weeks.

Other post-operative infection (998.59, T81.4XXA): Infection acquired following surgery not otherwise listed

Persistent post-operative fistula not otherwise classified (998.6, T81.83XA): A fistula is an abnormal connection between two epithelialized surfaces. Fistulas are usually caused by injury or surgery, but they can also result from an infection or inflammation

Post-operative air leak (512.2, J95.812): A post-operative air leak may follow lung surgery and involves air escaping into the pleural space. This usually resolves with chest tube therapy. A prolonged air leak is an air leak that lasts beyond postoperative day 5.

Secondary malignant neoplasm of other specified sites (198.89, C79.89): A cancerous tumor in a site or organ separate from the primary tumor, does not include lymph node metastasis

Shortness of breath (786.05, R06.02): Shortness of breath (dyspnea) is a subjective experience of breathing discomfort that consists of qualitatively distinct sensations that vary in intensity. Distinct sensations include effort/work, chest tightness, and air hunger (the feeling of not enough oxygen). Dyspnea is a normal symptom of heavy exertion but becomes pathological if it occurs in unexpected situations. It may result from asthma, pneumonia, cardiac ischemia, interstitial lung disease, congestive heart failure, chronic obstructive pulmonary disease, diaphragm dysfunction, deconditioning or psychogenic causes such as panic disorder and anxiety.

Swelling, mass or lump in chest (786.6, R22.2): Abnormal lesion which may or may not be cancerous in the chest, does not include breast masses

Other unlisted category of disease: Diagnosis not in any of the listed categories

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**SeqNo:** 1260
**Long Name:** Category of Disease - Primary - Other Specify
**Short Name:** CategoryPrimOth

**Definition:** Indicate the PRIMARY diagnosis (category of disease) for which the procedure was performed. Choose from the list when possible, if the category of disease is not listed, enter free text. Always code by the patient's diagnosis and procedure in the medical record; not by the ICD 10 and CPT codes documented by the Coders and Billers.

**Intent/Clarification:** Capture unlisted primary diagnosis here after carefully reviewing choices above.

ParentLongName: Category Of Disease - Primary
ParentShortName: CategoryPrim
ParentValue: = "Other unlisted category of disease"
ParentHarvestCodes: 1280

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**SeqNo:** 1270
**Long Name:** Category of Disease - Primary - Other ICD
**Short Name**: CategoryPrimOthICD
**Definition:** Enter ICD-10 code, if known, of other primary diagnosis (category of disease) not listed.

**Intent/Clarification:** The intent is to track category of disease codes for possible inclusion in next version and /or for internal analysis.

ParentLongName: Category Of Disease - Primary
ParentShortName: CategoryPrim
ParentValue: = "Other unlisted category of disease"
ParentHarvestCodes: 1280

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**SeqNo:** 1280
**Long Name:** Category of Disease – Secondary
**Short Name:** CategorySecond
**Definition:** Indicate the SECONDARY diagnosis (category of disease) for which the procedure was performed.

**Intent/Clarification:** The Secondary diagnosis can be left blank. As long as a primary diagnosis is selected, the record will be accepted as complete without having a secondary indicated. Always code by the patient's diagnosis and procedure in the medical record; not by the ICD 10 and CPT codes documented by the Coders and Billers.

Harvest Codes:

| Code: | Value: |
|---|---|
| 5 | No Secondary Diagnosis |
| 150 | Lung cancer, main bronchus, carina (162.2, C34.00) |
| 180 | Lung cancer, lower lobe (162.5, C34.30) |
| 160 | Lung cancer, upper lobe (162.3, C34.10) |

| | |
|---|---|
| 190 | Lung cancer, location unspecified (162.9, C34.90) |
| 170 | Lung cancer, middle lobe (162.4, C34.2) |
| 130 | Lung tumor, metastatic (197.0, C78.00) |
| 1350 | Malignant neoplasm other parts of bronchus or lung (162.8, C34.8) |
| 1370 | Personal history of malignant neoplasm of bronchus and lung (V10.11, Z85.118) |
| 1360 | Neoplasm of uncertain behavior of trachea, bronchus and lung (235.7, DM38.1) |
| 710 | Esophageal cancer, esophagogastric junction (cardia) (151.0, C16.0) |
| 1140 | Malignant neo stomach unspecified (151.9, C16.9) |
| 700 | Esophageal cancer, upper third (150.3, C15.3) |
| 1460 | Malignant neoplasm of the esophagus, unspecified (150.9, C15.9) |
| 690 | Esophageal cancer, middle third (150.4, C15.4) |
| 1130 | Malignant other part esophagus, specified (150.8, C15.8) |
| 680 | Esophageal cancer-lower third (150.5, C15.5) |
| 350 | Anterior mediastinal tumor primary (germ cell cancer, seminoma) (164.2, C38.1) |
| 380 | Anterior mediastinal tumor- thymus tumor (thymoma, thymic carcinoma) (164.0, C37) |
| 360 | Anterior mediastinal tumor- metastatic (197.1, C78.1) |
| 410 | Posterior mediastinal tumor- metastatic (197.1, C78.1) |
| 400 | Posterior mediastinal malignant tumor- primary (164.3, C38.2) |
| 1420 | Neoplasm of uncertain behavior of pleura, thymus, mediastinum (235.8, D38.2- D38.4) |
| 370 | Anterior mediastinal tumor- benign-(e.g., teratoma) (212.5, D15.2) |
| 430 | Myasthenia gravis (358.0, G70.00) |
| 70 | Tracheal tumor, malignant (162.0, C33) |
| 30 | Tracheal stenosis, congenital (748.3, Q32.1) |
| 80 | Tracheal tumor, benign (212.2, D14.2) |
| 100 | Subglottic stenosis-congenital (748.3, Q31.1) |
| 90 | Tracheal tumor, metastatic (197.3, C78.30) |
| 110 | Subglottic stenosis-acquired (post intubation) (478.74, J38.6) |
| 1700 | Tracheal stenosis, acquired (519.19, J39.8) |
| 60 | Tracheostomy related stenosis (519.02, J95.03) |
| 790 | Esophageal reflux (GERD) (530.81, K21.9) |

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|---|---|
| 1120 | Diaphragmatic hernia with obstruction, without gangrene (552.3, K44.0) |
| 1170 | Reflux esophagitis (530.11, K21.0) |

| | |
|---|---|
| 1110 | Diaphragmatic hernia with gangrene (551.3, K44.1) |
| 740 | Barrett's esophagus (530.85, K22.70) |
| 1100 | Diaphragmatic hernia without obstruction or gangrene (553.3, K44.9) |
| 1150 | Barrett's esophagus with High Grade Dysplasia (530.85, K22.711) |
| 1490 | Abdominal aneurysm without rupture (441.4, I171.4) |
| 1510 | Pericarditis, constrictive (432.2, I31.1) |
| 1500 | Cardiac tamponade (423.3, I31.4) |
| 1000 | SVC Syndrome (459.2, I87.1) |
| 990 | Pericardial effusion, malignant (198.89, C79.89) |
| 1520 | Unspecified disease of the pericardium (423.9, I31.9) |
| 980 | Pericarditis with effusion (420.9, I30.9) |
| 560 | Pectus carinatum (754.82, Q67.7) |
| 590 | Sternal tumor, benign (213.3, D16.7) |
| 550 | Pectus excavatum (754.81, Q67.6) |
| 570 | Sternal tumor, malignant (170.3, C41.3) |
| 620 | Rib tumor, benign-(e.g., fibrous dysplasia) (213.3, D16.7) |
| 580 | Sternal tumor, metastatic (198.5, C79.51) |
| 600 | Rib tumor, malignant-(e.g., osteosarcoma, chondrosarcoma) (170.3, C41.3) |
| 630 | Thoracic outlet syndrome (353.0, G54.0) |
| 610 | Rib tumor, metastatic (198.5, C79.51) |
| 670 | Diaphragm tumor, benign (215.4, D21.3) |
| 660 | Diaphragm tumor, metastatic (198.89, C79.89) |
| 650 | Diaphragm tumor, malignant (171.4, C49.3) |
| 640 | Diaphragmatic paralysis (519.4, J98.6) |
| 750 | Achalasia of esophagus (530.0, K22.0) |
| 1210 | Foreign body esophagus (935.1, T18.108a) |
| 820 | Acquired absence of esophagus (post esophagectomy) (V45.79, Z90.89) |
| 810 | Gastric outlet obstruction, pyloric stenosis, acquired (537.0, K31.1) |
| 1190 | Dyskinesia/spasm of esophagus (530.5, K22.4) |
| 1200 | Mallory Weiss tear (530.7, K22.6) |
| 780 | Epiphrenic diverticulum (530.6, K22.5) |
| 1180 | Stricture and stenosis of esophagus (530.3, K22.2) |
| 760 | Esophageal perforation (530.4, K22.3) |

| | |
|---|---|
| 800 | Tracheoesophageal fistula (530.84, J86.0) |
| 730 | Esophageal stricture (530.3, K22.2) |
| 1230 | Ulcer esophagus with bleeding (530.21, K22.11) |
| 720 | Esophageal tumor-benign (i.e., leiomyoma) (211.0, D13.0) |
| 1220 | Ulcer esophagus without bleeding (530.2, K22.10) |
| 1160 | Esophagitis (530.1, K20.9) |
| 770 | Zenkers diverticulum (530.6, K22.5) |
| 1480 | Other disease of the esophagus (530.89, K22.8) |
| 1470 | Other digestive system complication (997.49, K91.XX) |
| 1060 | Acute respiratory failure (518.81, J96.00) |
| 140 | Lung tumor, benign (e.g., hamartoma) (212.3, D14.30) |
| 1310 | Aspergillosis (117.3, B44.9) |
| 280 | Pneumonia (486.0, J18.9) |
| 220 | Bronchiectasis (494.0, J47.9) |
| 1380 | Post inflammatory pulmonary fibrosis (515, J84.89) |
| 1340 | Cystic fibrosis with pulmonary manifestations (277.02, E84.0) |
| 1390 | Primary Pulmonary Hypertension (416.0, I27.0) |
| 250 | Emphysema (492.8, J43.8) |
| 290 | Pulmonary insufficiency following surgery/trauma (ARDS) (518.5, J95.82) |
| 260 | Emphysematous bleb (492.0, J43.9) |
| 1070 | Pulmonary sequestration (748.5, Q33.2) |
| 200 | Lung abscess (513.0, J85.2) |
| 1400 | Transplanted lung complication(s) (996.84, T86.8XX) |
| 270 | Interstitial lung disease/fibrosis (516.3, J84.1) |
| 1080 | Gangrene and necrosis of lung (513.0, J85.0) |
| 210 | Pneumothorax (512.8, J93.1) |
| 300 | Hemothorax (511.8, J94.2) |
| 310 | Solitary pulmonary nodule (not a tumor, e.g., granuloma, subpleural lymph node, pulmonary infarct) (793.11, R91.1) |
| 330 | Mediastinal nodes, metastatic (196.1, C77.1) |
| 460 | Mediastinal cyst, Pericardial (519.3, J98.5) |
| 1410 | Benign neoplasm of thymus (212.6, D15.0) |
| 470 | Mediastinal cyst, Thymic (519.3, J98.5) |

| | |
|---|---|
| 390 | Lymphoma, intrathoracic (202.82, C85.92) |
| 340 | Mediastinal nodes, benign (229.0, D36.0) |
| 1090 | Mediastinal abscess (513.1, J85.3) |
| 320 | Mediastinitis (519.2, J98.5) |
| 440 | Mediastinal cyst, Bronchogenic (519.3, J98.5) |
| 420 | Posterior mediastinal tumor- benign (neurogenic) (212.5,D15.2) |
| 450 | Mediastinal cyst, Foregut duplication (519.3, J98.5) |
| 1430 | Unspecified disease of thymus gland (254.9, E32.9) |
| 230 | Empyema with fistula (510.0, J86.0) |
| 540 | Pleural thickening (511.0, J94.9) |
| 240 | Empyema without fistula (510.9, J86.9) |
| 530 | Pleural tumor, benign (212.4, D19.0) |
| 1680 | Empyema, tuberculosis (A15.6) |
| 520 | Pleural tumor, metastatic (197.2, C78.2) |
| 490 | Pleural effusion, infected- (empyema) (511.1, J86.9) |
| 1450 | Malignant neoplasm other specified sites of pleura (163.8, C38.4) |
| 500 | Pleural effusion, malignant (197.2, C78.2) |
| 510 | Malignant tumor of pleura, unspecified (e.g., mesothelioma) (163.9, C45) |
| 480 | Pleural effusion sterile (511.9, J90) |
| 1690 | Pleural effusion, TB; (Tuberculous pleurisy) (012.0, A15.6) |
| 1440 | Pleural effusion, other specified, except TB (511.89, J90) |
| 830 | Goiter, nodular (241.9, E04.9) |
| 840 | Thyroid neoplasm, malignant (193.0, C73) |
| 850 | Thyroid neoplasm, benign (226.0, D34) |
| 1300 | Dysphagia, unspecified (787.2, R13.10) |
| 10 | Tracheomalacia-congenital (748.3, Q32.0) |
| 120 | Vocal cord paralysis unspecified (478.3, J38.00) |
| 20 | Tracheomalacia-acquired (519.1, J39.8) |
| 1040 | Vocal cord paralysis, unilateral (478.31, J38.01) |
| 1050 | Vocal cord paralysis, bilateral (478.33, J38.02) |
| 50 | Tracheostomy-hemorrhage (519.09, J95.01) |
| 880 | Flail chest (807.4, S22.5xxa) |
| 870 | Sternal fracture (807.2, S22.20xa) |

| | |
|---|---|
| 860 | Rib fracture (807.0, S22.39xa) |
| 890 | Tracheal injury (807.5, S12.8xxa) |
| 1240 | Rib fractures, multiple (807.0, S22.49xa) |
| 900 | Traumatic pneumothorax (860.0, S27.0xxa) |
| 1030 | Abnormal radiologic finding (793.1, R91) |
| 1580 | Other non-infectious disorders of lymphatic channels (457.8, I89.8) |
| 1530 | Chronic airway obstruction not elsewhere classified (496, J44.9) |
| 1590 | Malignant neoplasm of connective tissue and other soft tissue of the thorax (171.4, C49.3) |
| 1290 | Chylothorax (457.8, 189.8) |
| 1600 | Malignant poorly differentiated neuroendocrine carcinoma, any site (209.3,C74.1) |
| 1540 | Disruption of internal operation, surgical wound (998.31, T81.32XA) |
| 1610 | Non-healing surgical wound (998.83, T81.89XA) |
| 1550 | Hemorrhage complicating a procedure (998.11, multiple codes) |
| 1620 | Other post- op infection (998.59, T81.4XXA) |
| 1560 | Hematoma complicating a procedure (998.12, multiple codes) |
| 1630 | Persistent post-op fistula not otherwise classified (998.6, T81.83XA) |
| 1570 | Hemoptysis unspecified (786.3, R04.2) |
| 1640 | Post-operative air leak (512.2, J95.812) |
| 1250 | Hyperhidrosis, focal axilla (705.21, L74.510) |
| 1650 | Secondary malignant neoplasm of other specified sites (198.89, C79.89) |
| 1260 | Hyperhidrosis, focal, face (705.21, L74.511) |
| 1660 | Shortness of breath (786.05, R06.02) |
| 1270 | Hyperhidrosis, focal, palms (705.21, L74.512) |
| 1670 | Swelling, mass or lump in chest (786.6, R22.2) |
| 1020 | Lymphadenopathy (785.6, R59.9) |
| 1280 | Other unlisted category of disease |

---

**SeqNo:** 1290
**Long Name:** Category of Disease - Secondary - Other Specify
**Short Name:** CategorySecondOth
**Definition:** Indicate the SECONDARY Diagnosis (category of disease) for which the procedure was performed if not listed.

**Intent/Clarification:** Capture unlisted secondary diagnosis here after carefully reviewing choices above.

ParentLongName: Category of Disease - Secondary
ParentShortName: CategorySecond
ParentValue: = "Other unlisted category of disease"
ParentHarvestCodes: 1280

---

**SeqNo:** 1300
**Long Name:** Category of Disease - Secondary - Other ICD
**Short Name:** CategorySecondOthIC D
**Definition:** Enter ICD-10 code, if known, of secondary diagnosis (category of disease).

**Intent/Clarification:** The intent is to track category of disease codes for possible inclusion in next version and /or for internal analysis.

ParentLongName: Category Of Disease - Secondary
ParentShortName: CategorySecond
ParentValue: = "Other unlisted category of disease"
ParentHarvestCodes: 1280

---

## Operative

**SeqNo:** 1310
**Long Name:** Date Of Surgery
**Short Name:** SurgDt
**Definition:** Indicate the date of surgery, which equals the date the patient enters the operating room.

**Intent/Clarification:**

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

---

**SeqNo:** 1320
**Long Name:** OR Entry Time
**Short Name:** OREntryT
**Definition:** Indicate to the nearest minute (using 24 hour clock) the time the patient enters the operating room.

**Intent/Clarification:** This should be collected from the same place every time (i.e. always from anesthesia report). Even if the thoracic surgeon was present only part of the case, code the entire OR time.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

---

**SeqNo:** 1330
**Long Name:** OR Exit Time
**Short Name:** ORExitT
**Definition:** Indicate to the nearest minute (using 24 hour clock) the time the patient exits the operating room.

**Intent/Clarification:** This should be collected from the same place every time (i.e. always from anesthesia report). Even if the thoracic surgeon was present only part of the case, code the entire OR time.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

---

**SeqNo:** 1340
**Long Name:** Anesthesia Start Time
**Short Name:** AnesthStartT
**Definition:** Indicate the time of anesthesia induction.

**Intent/Clarification:** This should be collected from the same place every time (i.e. always from anesthesia report). This is the start of anesthetic management, placing lines, induction of anesthesia. This time should be recorded on the anesthesia record.

---

**SeqNo:** 1350
**Long Name:** Anesthesia End Time
**Short Name:** AnesthEndT
**Definition:** Indicate the anesthesia end time documented in the medical record. The definition of anesthesia end time is when the anesthesiologist is no longer in personal attendance, that is, when the patient is safely placed under post-anesthesia supervision.

**Intent/Clarification:** This should be collected from the same place every time (i.e. always from anesthesia report). The time may be in the Recovery Room or ICU; when it is documented that anesthesia care has ended.

---

**SeqNo:** 1360
**Long Name:** Procedure Start Time
**Short Name:** ProcStartT
**Definition:** Indicate the time the procedure started.

**Intent/Clarification:** This should be collected from the same place every time (i.e. always from anesthesia report).

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**SeqNo:** 1370
**Long Name:** Procedure End Time
**Short Name:** ProcEndT
**Definition:** Indicate the time the procedure ended.

**Intent/Clarification:** This should be collected from the same place every time (i.e. always from anesthesia report).

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

---

**SeqNo:** 1380
**Long Name:** Multi-Day Operation
**Short Name:** MultiDay
**Definition:** Indicate whether the operation continued through midnight from one day to the next.

**Intent/Clarification:** Procedure start (Seq. 1360) and procedure end (Seq. 1370) times continue through midnight.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1390
**Long Name**: Planned, staged procedure
**Short Name:** PlanStageProc
**Definition:** Indicate if the patient's surgery is a planned, staged procedure. A procedure that is planned to occur in two stages which require the patient leave the operating room and return at a preplanned time on a subsequent day in order to complete the case.

**Intent/Clarification:** Planned, staged procedures must be stated up front. ~~Examples included FOB, MED/EBUS where the patient leaves the OR and returns at a later date for a resection.~~ The intent is to capture when a single major surgical procedure needs to be completed in two OR trips. Diagnostic procedures prior to a major procedure are not considered planned, staged procedures. Staged procedures are rare.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: Have a patient who had ENB & EBUS a few weeks prior to a lobectomy/thoracic lymphadenectomy. Histology from ENB confirmed lung adenocarcinoma and EBUS was done to stage mediastinum which was negative so lobectomy was scheduled. I'm abstracting the lobectomy surgery. Do I code YES to 1390 for the lobectomy? If yes, should we think of this data element as applying to any lung resection where a procedure to diagnose the lung cancer, such as EBUS/ENB/CT guided biopsy, was done prior to the lung resection? If I should code NO to 1390, please provide examples of cases where we would answer YES. **No, Planned staged procedure – intent is to capture when a single large procedure needs to be done with two separate OR trips. Intent is not to capture the diagnostics prior to the major procedure.**

September 2018: If the patient had mediastinoscopy in June 2018, and lobectomy procedure was planned to be done in July 2018 (New admission date). Do we code Yes to planned, staged procedure for the 2nd procedure (lobectomy)? Or it has to be in the same admission? **No, this is not a planned, staged procedure. The mediastinoscopy was diagnostic and not the first part of the lobectomy procedure. Planned, staged procedures are generally done during the same admission.**

December 2018: I have a patient who has tumors in the LUL and RLL. Initially he has a RLL Lobectomy, and then 2 days later a LUL Therapeutic Wedges for lung cancer. Is this considered a "Staged" procedure since there was a plan to return to the OR for the second resection? Also, when answering the question, do you say yes to "Staged" on the first DCF, both, or the last? **Mark 'yes' to Seq. 1390 on both DCFs.**

---

**SeqNo:** 1400
**Long Name:** Status of Operation
**Short Name**: Status
**Definition:** Indicate the status that best describes the clinical status of the patient at the time of the primary surgical procedure.

1. Emergent: The surgical procedure must be performed within 24 hours of presentation.
2. Urgent: All of the following conditions are met:
   - Not elective status
   - Not emergent status
   - Procedure required during same hospitalization in order to minimize chance of further clinical deterioration
3. Elective: The patient has been stable in the days or weeks prior to the operation
4. Palliative: The procedure is intended to provide comfort or relief

**Intent/Clarification:**

- Emergent status is coded for cases that require immediate intervention to prevent life threatening deterioration or death such as (but not limited to) esophageal perforation, severe hemorrhage or massive hemoptysis.
- Urgent status is coded for cases in which the operation must be performed before the patient can be discharged. Examples of urgent cases would include bronchopleural fistula, pneumothorax or decortication for empyema.
- Elective status is coded for cases that are performed during the same hospitalization for convenience would not be considered urgent. A medical patient with an incidental CXR finding who undergoes a diagnostic bronchoscopy or mediastinoscopy prior to discharge would have the procedure status coded as elective.

- Palliative – Treatment of malignant pleural effusions is often palliative and may include pleurodesis or placement of a chronic indwelling pleural drain (e.g. Pleurx catheter).

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Emergent |
| 2 | Urgent |
| 3 | Elective |
| 4 | Palliative |

---

**SeqNo:** 1410
**Long Name:** Reoperation
**Short Name:** Reop
**Definition:** Indicate whether this is a cardiac or thoracic re-operation that **affects this operative field** (i.e., patient has had a previous surgical procedure in the same cavity or organ).

**Intent/Clarification:** The intent is to determine if the surgeon is entering the same body **cavity** that has been previously entered. If so, then it's considered a reoperation and has a higher risk.
**The current surgery must be in the same operative field that has previously entered.**

**Example:**
~~A CABG followed by right upper lobectomy is NOT a reoperation but a CABG with LIMA followed by left upper lobectomy or left upper lobe wedge followed by left lower lobe procedure is.~~
Update: If the patient has had a previous CABG this is considered as a re-operation for both pleural spaces.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

August 2019: I just need to verify the following: If a patient has a thoracotomy with lobectomy on the left side and then years later has a Right VATS with wedge would I capture yes or no to 1410? **You would indicate 'No'.**
December 2019: If the patient had an open cholecystectomy in the past and will be having a laparoscopic hiatal hernia repair , will that be considered a re-op ? **Yes, this would be considered a re-op.**

---

**SeqNo**: 1420
**Long Name:** Robotic Technology Assisted
**Short Name:** Robotic
**Definition:** Indicate whether the thoracic surgery was assisted by robotic technology.

**Intent/Clarification:** Was robotic technology used for any part of the procedure?

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1430
**Long Name**: Surgical Approach Conversion
**Short Name:** UnanticConv
**Definition:** Indicate whether or not there was a conversion of the surgical approach.

Some surgeons put a scope in / VATS to have a look and make sure there isn't wide spread disease. If disease is not widespread, their plan is to operate via thoracotomy. These are not conversions and should be listed as thoracotomy. If the plan was to try the resection VATS, and they convert to thoracotomy for any reason, it should be listed as a conversion. Discuss with the surgeon to determine if the intent was to complete by VATs. If the answer is "yes" but could not, then it is a conversion. Of note all surgeons counsel patients there is a chance of conversion for every case. Because they counsel the patient and "planned for it" by putting it on a consent does not preclude this from counting the case as a conversion.

**Intent/Clarification:** Code the procedure that was completed (the open procedure if a conversion occurred).

Conversion in a procedure does not mean something always went wrong or was not appreciated preoperatively – many times it is done for better visibility, need to palpate structures or inability to reach a vital area, etc. This should not be viewed as a punitive data element.

Example: Patient to operating room for VATS Lobectomy. Unable to complete lobectomy as VATS. Converted to Thoractomy. Check VATS -> Open and capture this as a Thoractomy.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | VATS to open |
| 2 | Robotic to VATS |
| 3 | Robotic to open |
| 4 | No |

September 2018: What constitute elective and what is considered URGENT? Pt with suspicious LCA - taken for VATS (possible conversion), but d2 adherence was converted to open. Is this Urgent or elective? Can you provide specific examples? **This is elective. Bleeding or injury to an adjacent structure which effects patient stability are a couple of examples of when conversion would be Urgent.**
April 2019: Pt has a wedge resection that starts out as robotic. Once the robotic console is docked it is noted that there is hemopericardium. At that point they make a small nick into the pericardium, note fresh blood,

and perform a median thoracotomy, explore the pericardial cavity, and a repair is done. The rest of the procedure continues via the robot. Would this be considered a conversion to open, or since the surgery is completed via the robot, do I not assign? Also, if it is a conversion, would I state the reason as vascular (Seq1450)? **Yes, this is a conversion since a thoracotomy was done.**
May 2019: left VATS-assisted mini-thoracotomy is considered a thoracoscopic sx or Surgical Approach Conversion to open? **This is an open case.**
July 2019: Pt has a Left robotic pneumonectomy. The following was documented per the surgeon, "An Endobag was placed initially through the utility port, but the lung could not be placed in the Endobag as it was a large specimen. Therefore, the utility incision was enlarged and the bag was passed again through the utility incision at the bedside after undocking the robot and the specimen was placed into the bag and then this was extracted through the utility incision."
My question: Is extending the utility incision considered a conversion to open? There was no thoracotomy, so I am inclined to say no**. If retractors were not used and this was just a slight enlarging to get the utility bag out, then this is not a conversion.**

---

**SeqNo:** 1440
**Long Name:** Unanticipated Surgical Approach Conversion Type
**Short Name:** UnanticConvTy
**Definition:** Indicate the type of surgical approach conversion.

**Intent/Clarification:**

ParentLongName: Surgical Approach Conversion
ParentShortName: UnanticConv
ParentValue: = "VATS to open", "Robotic to VATS" or "Robotic to open"
ParentHarvestCodes: 1|2|3

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Elective |
| 2 | Emergent |

---

**SeqNo:** 1450
**Long Name**: Unanticipated Surgical Approach Conversion Reason
**Short Name**: UnanticConvRsn
**Definition:** Indicate the reason for the surgical approach conversion.

**Intent/Clarification:**
Examples:
- Vascular- examples: pulmonary artery or vein injury, intercostal or other vascular injury
- Anatomy- examples: adhesions, visualization issues, tumor size or location
- Lymph nodes- examples: bulky, sticky or calcified lymph nodes
- Technical- examples: staple misfire, equipment malfunction

ParentLongName: Surgical Approach Conversion
ParentShortName: UnanticConv
ParentValue: = "VATS to open", "Robotic to VATS" or "Robotic to open"
ParentHarvestCodes: 1|2|3
Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Vascular |
| 2 | Anatomy |
| 3 | Lymph nodes |
| 4 | Technical |

October 2018: If VATS is converted to MINI thoracotomy is this considered "yes" for conversion to open? **If a rib spreader was used it is considered an open procedure.**
December 2019: For Conversion Reason, which do we select for patient desaturating? Per surgeon "Due to desaturating the patient didn't tolerate VATS we had to convert to open thoracotomy" **Given the options, choose '4 – Technical'.**
February 2020: A "robotic VATS" converted to open should be captured as Robotic to open or VATS to open. What is the difference between the 2 options? **Select Robotic to Open**

---

**SeqNo:** 1460
**Long Name:** Intraoperative Packed Red Blood Cells
**Short Name**: IntraopPRBC
**Definition:** Indicate whether the patient received packed Red Blood Cells intraoperatively.

**Intent/Clarification:** Intraoperatively is defined as any blood started inside of the OR. For these Intraop Blood Product data fields the intent is to ONLY collect blood products that were transfused any time Intra-operatively during THIS SURGERY.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1470
**Long Name:** Intraoperative Packed Red Blood Cells – Number
**Short Name:** IntraopPRBCNum
**Definition:** Indicate the number of units of packed Red Blood Cells the patient received intraoperatively.

**Intent/Clarification:** Do not include autologous, cell-saver, pump-residual or chest tube recirculated blood.

ParentLongName: Intraoperative Packed Red Blood Cells

ParentShortName: IntraopPRBC
ParentValue: = "Yes"
ParentHarvestCodes: 1

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**SeqNo:** 1480
**Long Name:** ASA Classification
**Short Name:** ASA
**Definition:** Indicate the patient's American Society of Anesthesiologists Risk Scale for this surgical procedure. This information can be found in the operating room Anesthesia Record.

**Intent/Clarification:** ASA Classification is determined by the anesthesiologist of the procedure based on the patient's condition. This is a standard risk scale for patients undergoing anesthesia.
- I = A normal healthy patient
- II = A patient with mild systemic disease
- III = A patient with severe systemic disease
- IV = A patient with severe systemic disease that is a constant threat to life
- V = A moribund patient who is not expected to survive without the operation
- VI = A declared brain-dead patient whose organs are being removed for donor purposes

**This field is required for Record Inclusion. If missing data, the entire record will be excluded from the analysis.**

Harvest Codes and Value Definitions:

| Code: | Value: | Definition: |
|---|---|---|
| 1 | I | A normal healthy patient |
| 2 | II | A patient with mild systemic disease |
| 3 | III | A patient with severe systemic disease |
| 4 | IV | A patient with severe systemic disease that is a constant threat to life |
| 5 | V | A moribund patient who is not expected to survive without the operation |
| 6 | VI | A declared brain-dead patient whose organs are being removed for donor purposes |

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**SeqNo:** 1490
**Long Name:** Procedure
**Short Name:** Proc
**Definition:** Indicate the general thoracic procedures being performed during this operating room visit. Please note: A separate data collection form should be completed for each general thoracic operating room or endoscopy suite visit that involves a "major" procedure.

**Intent/Clarification:**
Check ALL the procedures that were performed. Complete Primary to indicate Primary procedure. The General Thoracic Surgery Database requires a separate data collection form for every OR / procedural area visit for major general thoracic procedure(s).

**Note:** Not all procedures will have an assigned procedure code.

- Placeholders were not assigned in this version to avoid confusion when/if codes become available prior to the next upgrade.
- Remember that billing codes do not always accurately capture the clinical procedure. Search by key word and check with the surgeon if clarification is necessary.
- **When trying to determine thoracotomy vs thoracoscopy, remember that if a rib spreader is used, the case is considered an open case (thoracotomy) regardless of the incision size.**
- **Non-analyzed procedures are highlighted in blue on the DCF.**

**This field is required for Record Inclusion. If missing data, the entire record will be excluded from the analysis.**

September 2018: Our physician routinely performs multilevel intercostal nerve blocks as part of the operative procedure. Should I list this as an "other minor procedure"? **No.**
December 2018: How do you capture a laparoscopic paraesophageal hiatal hernia without a fundoplication? OpNote: The gastric fundus was evaluated and the area of the pledgeted materials were scarred and with the redundant fundus posteriorly, there appeared to be a 2 fundus look with the top portion severely deformed requiring a partial gastrectomy. This was achieved with green loads on an Endo-GIA stapler and we stayed about 2 cm away from the GE junction. The rest of fundus was very thick and fibrotic, making a redo fundoplication impossible. Gastric fundus was then anchored to the diaphragm and anterior abdominal wall with horizontal mattress sutures. NG tube was placed within the esophagus carefully and the omentum was brought up to buttress the esophageal repair and the gastric staple line. This case was a redo of a previous hernia repair. **This does not cleanly fit into any captured operation. We have repair of PEH via laparotomy and via thoracotomy, but we need have repair of PEH via laparoscopy. We will make a note of that for the next version. Code it as an "other" for now.**
April 2019: A patient had a segmentectomy completed and the pathology comes back as Metastatic colonic adenocarcinoma. The patient had a follow-up CT and a wedge procedure was completed later for a questionable 9mm nodule. That nodule came back as Adenocarcinoma in situ (AIS), pTis (AIS), pNX. Would I mark yes to 1580? **YES** Do I use the pre-op information for sequences 1630, 1660, and 1670 and mark yes? **YES I** used the most recent CT scan for tumor size and pre-staging, is that correct? **YES**
May 2019: I have a patient that underwent elective wedge resection x2 of both the LU lobe and LL lobe for suspected lung CA; pathology report showed both specimens to be positive for adenocarcinoma. What procedure code should I use? Can I use 32667 (thoracoscopy w/ wedge resection) as a primary procedure code? Otherwise I do not have an analyzed procedure (and would generally not abstract the case). **Determine if the wedge was therapeutic or diagnostic. If therapeutic 32666 as primary and 32667 as the secondary**
May 2019: Patient had a bilateral orthotopic lung transplantation in 2003 for Idiopathic Pulmonary Fibrosis. Presents now with LLL nodule. Underwent a wedge resection and final path resulted in squamous cell carcinoma. A LLL lobectomy was then done. Is this case included in the registry? **Yes, it would be included.**
May 2019: Patient has incidentally noted 10 cm posterior mediastinal mass excised via thoracotomy. Final path report reveals schwannoma. Patient was asymptomatic prior to surgery. Please confirm this case will not be analyzed if submitted. **This case does not meet the criteria for mediastinal mass analysis (see page 146 of the**

**training manual). It may still be captured but will not be analyzed. Answer 'no' to seq. 1600. Do not complete section H**

June 2019: The primary procedure was a radical thymectomy code 60522 for thymoma. I am having trouble coding the pericardial reconstruction - would this be captured as OTHER or could I capture it as a window? Also, the RIMA was sacrificed in this case - how do I capture that? OPNOTE: Median sternotomy was performed. The sternum was divided using a saw. Chest spreader was then placed. We easily identified the mass, noted that it was densely adherent to the pericardium. Pericardium was then opened and we could visualize the mass emanating through the pericardium. There was no invasion of the right atrium or the aorta. We then took the pericardium down along the diaphragmatic surface and split it down to the diaphragmatic reflection. The phrenic nerve was taken during this as the tumor ran right through the middle of the pericardium where the phrenic nerve was. Superiorly, we took the pericardium as well all the way up to the confluence of the superior vena cava, innominate vein down to the eminences of the pulmonary veins. **Code 60522 Radial Thymectomy includes the reconstruction. You do not need to add another code.**

June 2019: A patient has a VATS done and the lobectomy is done along with some MLND. After the lobe is removed and the bronchus is being stapled the patient experience bleeding and a decision was made to convert to open to better assess the situation. Surgicel and pressure contained the bleeding. No obvious signs of bleeding were noted after removal of Surgicel after conversion. The right middle lobe bronchus was cut more proximal just distal to the TA staple line. A few more lymph nodes were taken after the conversion to open. How do I code this: would I code 32663 and 32480? Would I also code +32674 and 38746? I did capture conversion from VATS to Open. **This is an open lobectomy.**

July 2019: Patient entered the OR with a planned minimally invasive esophagectomy but the cancer proved to be unresectable. Only ended up with upper endoscopy, diagnostic laporascopy with lymph node dissection. Would this still be an analyzed procedure (form) or a non-analyzed with the attempted procedures along with the primary procedures? **No, not analyzed. If esophagectomy was not done then do not need to do the esophageal cancer section, section G.**

July 2019: If patient had MEDIASTINOSCOPY with biopsy- 39400 and ROBOTIC ASSISTED LYMPHADENECTOMY- +32674, how do you document it? Does it come under minor or major procedure? Apollo doesn't allow me to enter as minor surgery**. 39400 is minor and 32674 is major, but should only ever be used with a lung resection. Do not need to collect this case if these were the only procedures done.**

August 2019: I am trying to determine if this case would be included in the Lobectomy for Lung Cancer Composite. Prior to surgery, this patient had a diagnosis of endobronchial biopsy proven right lower lobe lung cancer. The following procedures were performed -

1. Right thoracoscopic minimally invasive right lower lobectomy with bronchoplasty.
2. Pedicled pericardial fat pad flap.
3. Multiple level intercostal nerve blocks.
4. Flexible bronchoscopy.
5. Mediastinal lymph node dissection

Would the combined lobectomy with airway procedure (bronchoplasty) exclude the case from the Lobectomy for Lung CA composite? **The primary procedure would be the lobectomy. The bronchplasty was an extra procedure that was done at the same time. If you want to code for it you can. You can use code 32501.**

August 2019: How do I capture Robotic Fundoplication if another primary procedure was done during the same OR visit. 2nd primary was Robotic bilateral salpingo-oophorectomy. The OR times will not actually capture the Fundo. **Just capture the fundoplication. Use the times for the fundoplication on the anesthesia report.**

August 2019: A patient had a robotic thymectomy. I selected procedure 32673...is that the best selection? There was no thymoma so how would I answer seq 2430 (PathRptStage) & seq 2450 (ResectCompleteness) since there was no cancer present? Should I leave them as unspecified? Patient has Myasthenia Gravis. **That is the correct code. Leave the others blank.**

September 2019: If a surgeon performs a "Minimally invasive converted to open McKeown (right thoracoscopy, laparoscopy converted to laparotomy) esophagectomy with cervical esophagogastric anastomosis. Should this still be coded as a "Minimally invasive three incision esophagectomy (Mckeown) 43288"? The laparoscopy was converted to Laparotomy, but still used VATS (not thoracotomy). The open procedure for 43112 "Three Incision-Total esophagectomy with thoracotomy; with cervical esophagogastrostomy" doesn't seem like it fits since it states "with thoracotomy". I have quite a few of these procedures. **Once they covert it is no longer minimally invasive – so need to use the 43112, open case.**

September 2019: During a lobectomy the following was performed: Electromagnetic
Navigational Bronchoscopic Transbronchial Dye Marking of Right Upper Lobe Lung Nodule
Using Indocyanine Green & methylene Blue Dyes Under Flouroscopic Guidance
- Radial Probe EBUS Localization of Right Upper Lobe Lung Nodule - non-analyzed cases
Navigational bronchoscopy 31627 do we also put 31626 fiducial marking-- the dye is used to surgically identify tumor for removal and not for radiation therapy - My question is do we still use 31626 for procedure code?
**No, dye is not a fiducial marker. Use 31627 for the navigational bronch.**

September 2019: Surgeon performed a sternotomy for excision of mediastinal mass along with a thymectomy. The mass was a thyoma. I cannot find a procedure code for a sternotomy approach to a thymectomy or excision of mediastinal mass. What procedure code should I use? **Transthoracic code 60521 and sternotomy will open up when you open that a thymectomy was done.**

September 2019: What procedure code do I use for each of these performed for this surgical case?
PROCEDURES PERFORMED:
1. Esophagogastroscopy.- ?? **43235**
2. Laparoscopic paraesophageal hernia repair with primary repair of diaphragmatic hernia followed by a posterior 240-degree fundoplication.- Do I use 'Laparoscopy, surgical with repair ofparaesophageal hernia (fundoplasty) without mesh (43281)'?? **Yes**
3. Anterior abdominal gastropexy. - ?? unlisted, esophageal procedure, fundoplication **43280**
4. Mediastinal mass resection. – Do I use "Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass (32662)"?? **yes, if done with VATS**

September 2019: The surgeon performed Robot assisted Repair of Bochdalek type hernia with mesh. Would I use 43282 Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) with mesh as the procedure code? **Congenital hernia, diaphragmatic, chronic 39541**

September 2019: Patient with a physician note in the op report under findings states, .." the lung was so stiff and boggy in the area to be biopsied wide enough that I did not feel a wedge resection was safe from either friability of the lung at this site to hold staples or due to the amount of lung that would need to be taken to get around it. Thus, I elected to do multiple core needle biopsies of the area in order to get the diagnosis. A separate wedge resection was done to help the diagnosis of interstitial lung disease."
So the surgeries done were " Left lower lobe 14-gauge core needle biopsies x8 concludes,( path report confirms is cancer) and also has an additional wedge resection for help in diagnosing interstitial disease. A mediastinal lymph node dissection is also done.
Do I include this case due to diagnosis of cancer even though it was a diagnostic wedge (CPT 32608) which is not an analyzed procedure? Also if I assign CPT 32674 for mediastinal lymph node dissection, does that then qualify the case because it now has an analyzed procedure with a cancer diagnosis? The wedge resection for interstitial

lung disease was also a diagnostic wedge, CPT 32607. **Non analyzed, diagnostic wedge – use 32606 VATS of mediastinal space.**

September 2019: What do I enter for resection of a benign pleural-based tumor (solitary fibrous tumor**)? Non analyzed case, you can enter it VATS 32662 39220 if open**

October 2019: If a pt had a lobectomy done by thoracotomy and the surgeon documented excision of mediastinal/hilar LN, do I need to code the LN excision separately? If yes, what procedure code would I use? **Yes, you would use code 38746**

October 2019: Patient underwent 1) Hybrid Ivor Lewis Esophagectomy with Laparoscopy; 2) Right VATs with Elective Conversion to Thoracotomy, Pyloroplasty, Placement of Laparoscopic Jejunostomy. Op Note: Patient had a lot of adhesions within chest.....I elected to do anastomosis via Thoracotomy. Please advise which code is Primary procedure ? Surgeon listed 43117 and 43287. **Use code 43117. You do not need to include 43287**

October 2019: Patient underwent Right Thoracotomy Bilobectomy (Middle and Lower Lobe); Resection of Anterior Mediastinal Mass; and Mediastinal Lymph Node Dissection. Bilobectomy was coded as Primary Procedure (T3N2 Tumor). Path report confirms Thymic Cyst located within Anterior Mediastinal Mass. Please advise if Section (H). Thymus / Mediastinal Mass Resection also needs to be completed. **NO, unless the patient also had MG.**

October 2019: What code should be used to code: open extensive lysis of adhesions? **We currently don't have one, it is part of the procedure.** If a pt gets a VATs wedge biopsy resection as part of the operation to determine resection/lobectomy. Should this be coded as positive clinical diagnosis? **No**

October 2019: Question regarding the classification of Ivor-Lewis Esophagectomy as minimally invasive. Field definition states that MIE has both thoracoscopic and laparascopic approaches. If the abdominal approach must be converted to a laparotomy, does this exclude the procedure from the minimally-invasive status, even if the anastomosis is still done via VATS??? **Yes**

February 2020: Pt had a widely invasive atypical thymoma and before a planned pneumonectomy could be completed, the pt's pulmonary artery was lacerated and he bled out. Pt was unable to be resuscitated and died in the OR. I'm not sure what should be the primary procedure since only a thoracotomy/clamshell incision was performed and pt died before any resection was completed. I only have code 32100 which is non-analyzed and I'm not sure what other code I should include. Can I use "resection of intracardiac tumor, 33120". Can I use "other" and just enter this code? **Since the procedure planned (and was attempted) was pneumonectomy, it should be coded as such, and analyzed. Death was a complication of this procedure. The complication has to be captured, and no other procedure was performed.**

April 2020: Patient has an esophagectomy. The op report from the oncology surgeon, who did the first part of the surgery, states, "There was an iatrogenic retraction injury to what appeared to be the splenic vein, resulting in significant blood loss, requiring a conversion to an open abdominal operation. This vein was controlled between clips. The remainder of the thoracic portion of the operation was performed robotically." The Thoracic surgeon's part is done with laparoscopic robotic technique only. I was going to assign 43287 due to the thoracic part, but do I need to consider the approach of the oncology surgeon as well? Also how do I answer Seq 1430 UnanticConv? **This is an open procedure, so use 43117 instead. Mark Robotic to Open for 1430 to capture the conversion.**

## Trachea, Bronchi, Larynx

Tracheoplasty, cervical (31750): A rarely performed operation for a deformed trachea to restore its normal shape. Tracheoplasty is usually done for tracheomalacia limited to the cervical region.

Tracheoplasty, intrathoracic (31760): An operation performed for a deformed and softened trachea via a right thoracotomy. The posterior membranous wall of the trachea is plicated and fixed to a piece of mesh to restore the normal "C" shaped trachea.

Carinal reconstruction (31766): A complex airway reconstruction for a disease process that involves the carina (the bifurcation of the trachea into the two main bronchi). Usually done for tracheal tumors but (rarely) can be done for benign diagnoses as well. The carina is resected and then the three airway ends (the trachea and the two main bronchi) are reconstructed. This operation can be performed via a right thoracotomy, a sternotomy or a clamshell incision. Institution of cardiopulmonary bypass may be necessary during this operation.

Bronchoplasty, excision stenosis and anastomosis (31775): An operation for a localized stenosis (stricture) of one of the major bronchi. Usually done for a benign process such as histoplasmosis or as a result of a stricture after a sleeve lobectomy. Usually done via a thoracotomy. The stenotic bronchus is resected and the two bronchial ends are then anastomosed together.

Excision tracheal stenosis, cervical (31780): The operation performed for both benign obstructive lesions of the cervical tracheal. The involved trachea is resected and the two normal ends of the trachea are anastomosed together. This code would be used for those procedures conducted via a neck incision.

Excision tracheal stenosis, thoracic (31781): Another approach to address benign tracheal pathology where, due to disease location, a partial or complete sternotomy is performed in addition to the neck incision.
Excision of tracheal tumor or carcinoma, cervical (31785): Resection of a tracheal tumor via a cervical approach. Involves resecting the section of trachea with the tumor and anastomosing the two divided ends of the trachea together.

Excision of tracheal tumor or carcinoma, thoracic (31786): Resection of an intrathoracic tracheal tumor. Usually done via a complete sternotomy or a right thoracotomy. May include a limited cervical incision as well. Involves resecting the section of trachea with the tumor and anastomosing the two divided ends of the trachea together.

Suture of tracheal wound or injury, cervical (31800): Partial disruption of the tracheal wall often requires direct surgical repair. When this injury is corrected in the neck, this code should be used.

Suture of tracheal wound or injury, intrathoracic (31805): Describes direct surgical repair of the intrathoracic trachea, usually performed via a right thoracotomy.

Tracheostomy, planned (31600): A planned surgical procedure to create a tracheostomy, an opening through the neck into the trachea (windpipe), a tube is usually placed through this opening to provide an airway and to remove secretions from the lungs.

Tracheostomy replacement (tube change) prior to est. of fistula tract (31502): Trach placement involves a fistula tract from the skin of the anterior neck to the trachea. If the trach tube must be changed before the tract is fully established (usually after about seven days), report 31502.

Tracheostomy revision simple, without flap (31613): Surgical procedure to revise an existing tracheostoma, often enlargement

Bronchogenic cyst removal: Bronchogenic cysts are abnormal growths of tissue that are congenital (present from birth). They typically have thin walls and are filled with fluid or mucous. Most bronchogenic cysts are found in the mediastinum. Thoracotomy, VATs or robotic approaches may be used for removal.

Bronchial laceration suture: Surgical repair of laceration of the bronchus using suture

Bronchial sleeve resection: A lung resection in which a section of the proximal bronchus is removed along with diseased lung tissue after which the proximal and distal ends of the bronchus are anastomosed

Bronchoplasty, graft repair (31770): Surgical repair of a defect in the bronchus using tissue or synthetic graft material

Bronchopleural fistula closure (32906): Bronchopleural fistula (BPF) is a communication in the form of a sinus tract between the pleural space and the bronchial tree. BPF carries a high morbidity and mortality and is associated with prolonged hospital stay and thus high resource consumption. Surgical closure may be attempted, although cavernostomy/Eloesser flap may be required.

Partial laryngectomy (31370): Removal of part of the larynx, usually done in conjunction with a tracheal resection and reconstruction

Rigid stent removal: Stents in the trachea or bronchus are often considered permanent but can be removed surgically or via bronchoscopy.

Tracheostomy revision complex, with flap (31614): Revision of the tracheostoma using a tissue flap or pedicle

Tracheostomy mediastinal: An anterior mediastinal tracheostomy involves the construction of a tracheostomy stoma on the anterior chest wall using the intrathoracic trachea when there is insufficient length to reanastomose the remaining trachea or to bring the trachea out of the superior mediastinum for a standard suprasternal stoma. The procedure involves laryngectomy (if not done previously) and resection of the upper sternum, the medial third of the clavicles, and the first and usually second ribs. The primary indications for this operation are mostly limited to advanced cervicothoracic neoplasms in the superior mediastinum, although it is done occasionally for benign disease.

## Bronchoscopy

Tracheobronchoscopy through established tracheostomy incision (31615): Airway evaluation with a bronchoscope that is performed through a previously placed tracheostomy tube.

Endobronchial ultrasound (EBUS) during bronchoscopic diagnostic or therapeutic intervention(s) (31620): Describes usage of an endoscopic ultrasound probe to evaluate structures outside of the tracheobronchial tree.

Bronchoscopy, diagnostic, with or without cell washing (31622): Describes endoscopic evaluation of the tracheobronchial tree with or without washing the airway for cytological or microbiologic evaluation. Performed as a matter of routine during a majority of thoracic surgery.

Bronchoscopy, with brushing or protected brushings (31623): Describes endoscopic evaluation of the tracheobronchial tree with the use of a cytological brush to determine the etiology of an endobronchial abnormality.

Bronchoscopy, with bronchial alveolar lavage (BAL) (31624): Describes endoscopic evaluation of the tracheobronchial tree with a thorough lavage of a bronchial tree.

Bronchoscopy, with bronchial or endobronchial biopsy(s), single or multiple sites (31625): Describes endoscopic evaluation of the tracheobronchial tree with forceps biopsy of a directly visualized abnormality. This is done through the working channel of the bronchoscope.

Bronchoscopy, with placement of fiducial markers (31626): Fiducial markers are metallic markers that are implanted in and/or around a soft tissue tumor, or within the bony spine, to act as a radiologic landmark, to define the target lesion's position with millimeter precision. These are placed during bronchoscopy in preparation for radiation therapy.

Bronchoscopy, navigational (31627): Navigational bronchoscopy is used to reach tumors located in the periphery of the lungs, where smaller bronchi are not wide enough to allow passage of a traditional bronchoscope. Navigational bronchoscopy can be used to find lung tumors, take biopsies and administer treatment.

Bronchoscopy, with transbronchial lung biopsy(s), single lobe (31628): Describes endoscopic evaluation of the tracheobronchial tree with forceps biopsy of a lesion outside of the bronchial tree. Often performed with x-ray guidance during the procedure.

Bronchoscopy, with transbronchial needle aspiration biopsy(s) (31629): Describes endoscopic evaluation of the tracheobronchial tree with a needle biopsy of a lesion outside of the bronchial tree. Often performed with x-ray guidance during the procedure.

Bronchoscopy, with tracheal/bronchial dilation or closed reduction of fracture (31630): Describes endoscopic evaluation of the tracheobronchial tree with dilatation of an airway stenosis.

Bronchoscopy, with placement of tracheal stent(s) (includes tracheal/bronchial dilation as required) (31631): Describes endoscopic evaluation of the tracheobronchial tree with dilatation of a stenotic tracheal lesion with placement of a tracheal stent.

Bronchoscopy, with transbronchial lung biopsy(s), each additional lobe (31632): Code use for each additional lobe in which a transbronchial biopsy is performed.
Bronchoscopy, with transbronchial needle aspiration biopsy(s), each additional lobe (31633): Code use for each additional lobe in which a transbronchial needle aspiration biopsy is performed.

Bronchoscopy, with removal of foreign body (31635): Describes endoscopic evaluation of the tracheobronchial tree with removal of a foreign body within the airway.

Bronchoscopy, with placement of bronchial stent(s) (includes tracheal/bronchial dilation as required), initial bronchus (31636): Describes endoscopic evaluation of the tracheobronchial tree with dilatation of a stenotic bronchial lesion with placement of a bronchial stent.

Bronchoscopy, each additional major bronchus stented (31637): Code use for each additional major bronchus in which a stent is placed.

Bronchoscopy, with revision of tracheal or bronchial stent inserted at previous session (31638): Describes endoscopic evaluation of the tracheobronchial tree with revision of a previously placed airway stent.

Bronchoscopy, with excision of tumor (31640): Describes endoscopic evaluation of the tracheobronchial tree with destruction of an airway tumor by direct excision either by forceps or with rigid bronchoscopic techniques.

Bronchoscopy, with destruction of tumor or relief of stenosis by any method other than excision (e.g., laser therapy) (31641): Describes endoscopic evaluation of the tracheobronchial tree with laser or photodynamic therapy treatment of an airway obstruction.

Bronchoscopy, with placement of catheter(s) for intracavitary radioelement application (31643): Describes endoscopic evaluation of the tracheobronchial tree with placement of a catheter to deliver endobronchial radiation therapy (brachytherapy).

Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, initial (e.g., drainage of lung abscess) (31645): Describes endoscopic evaluation of the tracheobronchial tree with the establishment of drainage of a lung abscess within the bronchia tree.

Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, subsequent (31646): Describes endoscopic evaluation of the tracheobronchial tree for any other repeat lung abscess drainage procedures on the same patient.

## Pleural Space & Lung

Thoracostomy; with rib resection for empyema (32035): This refers to opening the chest and removal of one or more ribs to drain an infected, intrapleural infection. It may be performed either when the lung is fixed to the chest wall or over a chest tube that is left in until pleural space stabilization has occurred. The goal is progressive obliteration of the space over time with granulation tissue formation.

Thoracostomy; with open flap drainage for empyema (32036): This describes the classic Eloesser flap, an open drainage of intrapleural infection with removal of several ribs and sewing of the skin and subcutaneous tissue to the endothoracic fascia in order to maintain long-term patency of the defect. This is typically performed in the setting of any large infected space, particularly following pneumonectomy.

Thoracotomy biopsy of pleura (i.e., open lung biopsy) (32098): Synonymous with open lung biopsy, this is usually performed via a small anterior incision with the patient in the prone position. A small representative portion of lung is removed by wedge resection.

Thoracotomy, with exploration (32100): Opening of the chest with rib spreading for the purposes of performing biopsies of either the lung or pleura. This is usually performed in anticipation of more extensive resection.

Thoracotomy, major; with control of traumatic hemorrhage and/or repair of lung tear (32110): Refers to opening the chest with rib spreading following traumatic injury in order to ascertain any sites of vascular injury for repair either by primary repair or resection. Concomitant parenchymal lung injury may also be sutured or resected either by wedge or larger anatomic resection.

Thoracotomy, major; for postoperative complications (32120): Describes opening the chest in order to address complications from a previous surgical procedure. It can be performed any time after the initial procedure depending on the nature of the complication (hemorrhage, infection, fistula, chyle leak, etc.)

Thoracotomy, major; with cyst(s) removal, with or without a pleural procedure (32140): Open removal of a congenital cyst, either bronchogenic, esophageal or pericardial with or without pleural flap reinforcement.

Thoracotomy, major; with excision-plication of bullae, with or without any pleural procedure (32141): Open removal of bullae, air spaces whose walls are made up of destroyed lung, in order to re-establish ventilation and perfusion of the adjacent, normal, compressed lung. The bulla is opened, and the fibrous area resected using the walls to reinforce the staple line.

Thoracotomy, major; with removal of intrapleural foreign body or hematoma (32150): Refers to opening the chest for evacuation of a large hematoma or removal of a retained foreign body, either traumatic or iatrogenic.

Thoracotomy with cardiac massage (32160): This is a left-sided, anterolateral, rib-spreading incision usually performed in the setting of a traumatic arrest. The pericardial is opened for manual cardiac massage and placement of a large-bore right atrial catheter for rapid infusion. The descending aorta may also be clamped from the left chest incision.

Pleural scarification for repeat pneumothorax (32215): This describes mechanical abrasion of the parietal pleura in order to induce pleurodesis (adhesion formation and obliteration of the pleural space). It is most commonly performed for recurrent, spontaneous pneumothorax, but may be done for other indications, such as recurrent pleural effusion or for treatment of chylothorax. It may be done via video-assisted thoracic surgery (VATS) or thoracotomy.

Decortication, pulmonary-total (32220): Refers to removal of fibrous scar tissue from the entire surface of the lung, typically in the setting of a chronic empyema and trapped lung. The goal is to expand the entire lung. This is typically performed through a thoracotomy.

Decortication, pulmonary, partial (32225): Removal of fibrous scar tissue from a localized portion of the lung. This is usually done in the setting of less extensive empyema, chronic pleural effusion or organized hemothorax. This may be done via VATS or thoracotomy.

Pleurectomy, parietal (32310): Describes removal of the parietal pleura, usually through a thoracotomy. It is most commonly performed for malignant pleural mesothelioma, although it is still occasionally performed as prophylaxis for malignant pleural effusion in the setting of incidental metastatic pleural disease.

Decortication and parietal pleurectomy (32320): This refers to removal of the entire parietal and visceral pleural surfaces most commonly for malignant pleural mesothelioma. It is performed via thoracotomy.

Removal of lung, total pneumonectomy (32440): Resection of the entire lung most commonly for primary lung cancer, although there are other indications such as metastatic or inflammatory disease. Intrapericardial pneumonectomy describes when the major blood vessels are isolated and divided within the pericardial sac. The procedures may be performed by VATS, thoracotomy or sternotomy.

Removal of lung, sleeve (carinal) pneumonectomy (32442): Pneumonectomy with removal of both main stem bronchi with reconstruction of the remaining bronchus to the trachea by sutured anastomosis. This is usually done for primary airway tumors, such as adenoid cystic or mucoepidermoid carcinomas. Right-sided resection is performed through a right thoracotomy, and left-sided resection requires bilateral thoracotomies. Less commonly, a sternotomy may give access for either side.

Removal of lung, total pneumonectomy; extrapleural (32445): This describes pneumonectomy coupled with resection of the visceral and parietal pleura. It is typically done for malignant pleural mesothelioma and occasionally for other cancers with isolated pleural metastases (lung, thymoma). If performed for neoplastic disease, it may involve diaphragm and/or pericardial resection and reconstruction using prosthetic material. The procedure is usually performed via thoracotomy or sternotomy.

Removal of lung, single lobe (lobectomy) (32480): Resection of a lobe of the lung most commonly for primary lung cancer. It can be performed by ~~VATS,~~ thoracotomy or sternotomy.

Removal of lung, two lobes (bilobectomy) (32482): Removal of either the right upper and middle or the middle and lower lobes of the lung typically for lung cancer involving both adjacent lobes. It may be performed by VATS, thoracotomy or sternotomy.

Removal of lung, single segment (segmentectomy) (32484): Describes resection of an anatomic segment within a lobe. It is performed for lesions occupying a segment as defined by a separate pulmonary artery, bronchus and segmental venous drainage that follows the fissures between segments. The indications also include benign tumors, metastatic and primary lung cancers. It can be performed by VATS, thoracotomy or sternotomy.

Removal of lung, sleeve lobectomy (32486): Defined as a lobectomy with removal of additional airway supplying a neighboring segment or lobe of the lung or the entire lung and reconstruction of the airway by direct suturing. It is usually performed when a tumor or disease process is involving only a portion of the adjacent airway while sparing the lung parenchyma, as in squamous cell lung cancer and primary airway tumors such as carcinoids or mucoepidermoid carcinoma. This is typically performed via thoracotomy.

Removal of lung, completion pneumonectomy (32488): Resection of the entire lung in a re-operative setting following a previous lung resection, usually a lobectomy. It is performed most commonly for primary lung cancer, although there are other indications such as metastatic or inflammatory disease.

Removal of lung, excision-plication of emphysematous lung(s) for lung volume reduction (LVRS) (32491): Resection of the most severely emphysematous lung in patients with heterogenous disease distribution and evidence of severe airflow obstruction and hyperinflation of the lungs despite optimal medical management. This is usually performed bilaterally by VATS or sternotomy for upper lobe predominant disease.

Resection and repair of portion of bronchus (bronchoplasty) when performed at time of lobectomy or segmentectomy (32501): This refers to removal of a portion of the airway beyond the anatomic confines of either a lobe or segment during anatomic resection followed by primary repair of the airway in order to preserve lung tissue unaffected by the disease process. Bronchoplasty is typically performed through a thoracotomy.

Resection of apical lung tumor (e.g. Pancoast tumor), including chest wall resection, without chest wall reconstruction (32503): Describes resection of a primary lung tumor, usually NSCLC, located in the superior sulcus (anterior or posterior) with simultaneous removal of the involved ribs without prosthetic reconstruction. The lung resection is usually a lobectomy, but may also be a segmentectomy or wedge resection depending on the size of the lesion and respiratory capacity of the patient.

Resection of apical lung tumor (e.g. Pancoast tumor), including chest wall resection, with chest wall reconstruction (32504): Describes resection of a primary lung tumor, usually NSCLC, located in the superior sulcus (anterior or posterior) with simultaneous removal of the involved ribs with prosthetic reconstruction. The lung resection is usually a lobectomy, but may also be a segmentectomy or wedge resection depending on the size of the lesion and respiratory capacity of the patient.

Thoracoscopy, diagnostic lungs and pleural space, without biopsy (32601): Examination of pleural space and/or lungs with a thoracoscope through a small incision between the ribs. No biopsy specimens are obtained.

Thoracoscopy, surgical; with pleurodesis (e.g., mechanical or chemical) (32650): This is a therapeutic procedure to promote the sealing (desis) of the lungs and chest wall (pleurodesis). It is performed through small incisions using a thoracoscope and an abrasive or irritating agent. Common abrasives are Bovie scratch pads or gauze pads. Common irritants are sterile talc or doxycycline. Bleomycin could be used but would be rare for a surgical procedure. A chest tube is left to evacuate any residual air or fluid. This is usually done under a general anesthetic. It is done for either air or fluid problems within the pleural space.

Thoracoscopy, surgical; with partial pulmonary decortication (32651): This is therapeutic procedure to re-expand a part of one lung done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments to remove a fibrous peel from the surface of the lung. This peel initially restricts the expansion of lung. Its removal allows the lung to re-expand and fill the pleural space. One or more chest tubes are placed at the end of the procedure to drain fluid and air. Common indications for this procedure are chronic pleural effusions, parapneumonic effusions and malignant effusions.

Thoracoscopy, surgical; with total pulmonary decortication (32652): This is therapeutic procedure to re-expand a complete lung on one side done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments to remove a fibrous peel from the surface of the lung. This peel initially restricts the expansion of lung. Its removal allows the lung to re-expand and fill the pleural space. One or more chest tubes are placed at the end of the procedure to drain fluid and air. Common reasons to do this procedure are chronic pleural effusions, parapneumonic effusions and malignant effusions. The complete lung needs to be freed.

Thoracoscopy, surgical; with removal of intrapleural foreign body or fibrin deposit (32653): This is therapeutic procedure to re-expand the lung done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments to remove a gelatinous or fibrinous deposit from within the pleural space. The surface of the lung is not or only slightly involved and can spontaneously expand once the deposit is removed from the pleural

space. This deposit initially restricts the expansion of lung. Its removal allows the lung to re-expand and fill the pleural space. One or more chest tubes are placed at the end of the procedure to drain fluid and air. Common reasons to do this procedure are chronic pleural effusions, parapneumonic effusions and malignant effusions.

Thoracoscopy, surgical; with control of traumatic hemorrhage (32654): This is therapeutic procedure done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments to control bleeding from within the thoracic cavity. This typically involves clipping, suturing, ligating or cauterizing the lung or chest wall.

Thoracoscopy, surgical; with excision-plication of bullae, including any pleural procedure (32655): This is therapeutic procedure to remove a bullae or blister from the surface of the lung done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments to remove a portion of the lung containing the bullae. Often times at the completion of this procedure, a technique to affect pleurodesis via mechanical abrasion, talc insufflation, or installation of doxycycline is commonly done.

Thoracoscopy, surgical; with parietal pleurectomy (32656): This is therapeutic procedure to remove the pleural lining from the surface of the chest wall done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments. The goal of this technique is to have the lung form adhesions to the chest wall to prevent further collapse of the lung, pneumothorax or pleural effusion.

Thoracoscopy, surgical; with lobectomy, total ~~or segmental~~ (32663): This is therapeutic procedure to remove an anatomic lobe ~~or segment~~ of the lung requiring vascular and bronchial dissection done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments. A rib spreader is not used.

Insertion of indwelling pleural catheter (32550): Usually done for malignant pleural effusions under local anesthesia. Using a seldinger technique (a needle and a guide wire placed thru the needle) a small plastic tube is inserted into the pleural space and is anchored with a cuff in the subcutaneous tissue. It is then connected to a vacuum drainage bottle to collect the pleural fluid. Often left in for weeks to months. The most common trade name of the catheter used is the Pleurx catheter.

Repair lung hernia through chest wall (32800): An uncommon operation usually done after trauma and more rarely after a previous thoracotomy. The procedure addresses lung tissue which protrudes between missing or separated ribs. An incision is made over the defect which is then repaired. It usually involves reconstructing the missing ribs with mesh material.

Closure of chest wall following open flap drainage for empyema (Claggett type procedure) (32810): This procedure is performed for patients with a preexisting open window thoracostomy (a surgically created defect in the chest wall to allow open drainage of an empyema) that is ready for closure. The soft tissues around the site are mobilized, the cavity is washed out and filled with antibiotic solution, and then the wound is closed in layers.

Total lung lavage (for alveolar proteinosis) (32997): An uncommon procedure for a rare medical condition (alveolar proteinosis) in which a large amount of abnormal protein is deposited in the alveoli of the lung impairing lung function. Using general anesthesia and a double lumen endotracheal tube, the lungs are washed until no more protein comes out of the lungs. Usually 2-5 liters of saline are used for each lung. Can be performed on one or both lungs.

Radiofrequency ablation (RFA) lung tumor (32998): This procedure can be done by either radiologists or thoracic surgeons. Usually done under local anesthesia using CT scan guidance. Using image guidance a long needle is placed in a lung tumor (either lung cancer or a lung metastasis) and then energy is transmitted to the tip of the needle which makes the tip hot. The transmitted heat kills the tumor. Can also be done via VATS or open thoracotomy.

Thoracoscopy, diagnostic; with biopsy(s) of lung infiltrate(s) (eg wedge), unilateral (32607): Minimally invasive retrieval of lung tissue sample from one side for diagnostic evaluation of a lung infiltrate. Thoracoscopy, sometimes abbreviated as 'VATS' (video assisted thoracoscopy) is performed through several small openings rather than a large chest wall incision.

Thoracoscopy, diagnostic; with biopsy(s) of lung nodule(s) or mass(es) (eg incisional), unilateral (32608): Minimally invasive retrieval of lung mass or nodule tissue sample from one side for diagnostic purposes. Thoracoscopy, sometimes abbreviated as 'VATS' (video assisted thoracoscopy) is performed through several small openings rather than a large chest wall incision.

Thoracoscopy, diagnostic; with biopsy(s) of pleura (32609): Minimally invasive retrieval of a pleural tissue sample from one side for diagnostic purposes. Thoracoscopy, sometimes abbreviated as 'VATS' (video assisted thoracoscopy) is performed through several small openings rather than a large chest wall incision

Thoracotomy with biopsy(s) lung infiltrate(s) (e.g. wedge), unilateral (32096): Retrieval of lung tissue for diagnostic assessment of a lung infiltrate via surgical incision, unilateral= one side

Thoracotomy with biopsy(s) lung nodule(s) or masses (e.g. incisional), unilateral (32097): Retrieval of lung mass or nodule for diagnostic purposes via surgical incision, unilateral= one side

Thoracoscopy with therapeutic wedge resection (e.g. mass or nodule, initial, unilateral (32666): Minimally invasive removal of a section of diseased (typically cancerous) lung tissue. Thoracoscopy, sometimes abbreviated as 'VATS' (video assisted thoracoscopy) is performed through several small openings rather than a large chest wall incision

Thoracoscopy with therapeutic wedge resection (e.g. mass or nodule) each additional resection, ipsilateral (32667) List separately in addition to primary procedure code: Minimally invasive removal of additional lung tissue wedges on the same side as the initial wedge resection

Thoracoscopy with diagnostic wedge resection followed by anatomic lung resection (32668), List separately in addition to primary procedure code: Minimally invasive removal of a lung tissue sample for biopsy/diagnosis prior to therapeutic resection (do not code this as primary procedure)

Thoracoscopy with removal of a single lung segment (segmentectomy) (32669): Minimally invasive removal of a segment of lung tissue, larger than a wedge but smaller than a lobe, with segmental bronchus and pulmonary artery division

Thoracoscopy with removal of two lobes (bilobectomy) (32670): Minimally invasive excision of two lobes of the right lung, either right upper and middle or right lower and middle lobes

Thoracoscopy with removal of lung, pneumonectomy (32671): Minimally invasive excision of one lung

Thoracoscopy with resection-plication for emphysematous lung (bullous or non-bullous) for lung volume reduction-LVRS, unilateral including any pleural procedure (32672): In lung volume reduction surgery (LVRS), a large area of damaged lung is removed to allow the remaining lung tissue to expand. This surgery is done only for people with severe chronic obstructive pulmonary disease (COPD) or with certain types of emphysema. Unilateral = one side

Thoracotomy with therapeutic wedge resection (e.g. mass nodule) initial (32505): Removal of a wedge of lung tissue with pathology (typically cancer) using an open surgical approach. These patients generally do not subsequently undergo lobectomy.

Thoracotomy with therapeutic wedge resection (e.g. mass nodule) each additional resection, ipsilateral (+32506) List separately in addition to primary procedure code: Removal of multiple wedges of lung tissue with pathology (typically cancer) using an open surgical approach Ipsilateral = same side as primary resection. Do not code this as a primary procedure.

Thoracotomy with diagnostic wedge resection followed by anatomic lung resection (+32507), List separately in addition to primary procedure code: Open surgical removal of a lung tissue sample for biopsy/diagnosis prior to therapeutic resection (do not code this as primary procedure)

Thoracotomy with open intrapleural pneumolysis (32124): Open surgical lysis of adhesions in the pleural space. Surgical separation of the lung and costal pleura from the endothoracic fascia; formerly used in collapse therapy for tuberculosis.

Unlisted procedure lung (32999): Use for novel operations that do not fit in other lung codes.

**Lung, other**

Open closure of major bronchial fistula (32815): Usually performed for a postoperative bronchopleural fistula (BPF) after a pulmonary resection but it can also be done for rare cases of cancer or infections causing a BPF. The BPF must involve a major bronchus (i.e.; the main bronchus after pneumonectomy or the right lower lobe bronchus after lower lobectomy). This code should not be used to close a lung parenchymal air leak after a previous pulmonary resection (not a major bronchus). The bronchus can be sutured or stapled. A muscle or omental flap may be used to buttress the repair (code that as a secondary procedure).

Thoracoplasty with closure of bronchopleural fistula (32906): Refers to a major resection of a large number of ribs in order to reduce the amount of existing pleural space. Additionally, closure of a communication between a bronchus or lung tissue and the pleura is performed during this procedure.

Single lung transplant (32851): Involves excision of poorly functioning lung and implantation of a new donor lung (do not code for the pneumonectomy). Usually done for emphysema or interstitial lung disease.

Single lung transplant with CPB (32852): A single lung transplant done with the aid of cardiopulmonary bypass (do not code for the pneumonectomy).

Double lung transplant (32853): Excision of both lungs and replacement with two new donor lungs (do not code for the bilateral pneumonectomies). Usually done for cystic fibrosis, emphysema, bronchiectasis, interstitial lung disease.

Double lung transplant with CPB (32854): Excision of both lungs and replacement with two new donor lungs (do not code for the bilateral pneumonectomies) with the aid of cardiopulmonary bypass. Usually done for cystic fibrosis, emphysema, bronchiectasis, interstitial lung disease.

**Mediastinum and Diaphragm**

Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass (32662): This is a procedure to remove a cyst, tumor or mass from the mediastinum done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments.

Thoracoscopy, diagnostic; mediastinal space, with biopsy (32606): Examination of the mediastinum, the space between the lungs/pleural space containing lymph nodes, adipose tissue, thymus, great vessels, heart from the pleural space. Access is via small incisions between the ribs. Specifically this is not a midline or subxiphoid approach. Specimens of lymph nodes, adipose tissue and/or thymus are obtained.

Thoracic lymphadenectomy, regional, including mediastinal and peritracheal nodes (38746): This is an add-on procedure that must be accompanied by a lung resection (usually lobectomy/pneumonectomy) for cancer. It denotes a systematic mediastinal lymph node dissection that is in addition to the lung resection and removal of hilar nodes with the lung specimen. Use this code to report systemic sampling of or subtotal resection of thoracic lymph nodes when done in conjunction with thoracic procedure. Do not use this code for excision of a single lymph node. (Do not use this code for VATS- use 32674)

Mediastinotomy with exploration or biopsy; cervical approach (39000): A rarely used procedure to approach the superior mediastinum either for lymph nodes or anterior mass that was not diagnosed. If a resection such as thymectomy or substernal thyroid goiter is performed than this code should not be used.

Mediastinotomy with exploration or biopsy; transthoracic approach (39010): Often this is referred to as a Chamberlain Procedure or anterior mediastinotomy. It is usually performed through the 2$^{nd}$ or 3$^{rd}$ interspace just lateral to the sternum. It is used to approach anterior mediastinal masses or aortopulmonary window adenopathy on the left side. It typically involved use of a mediastinoscope to biopsy through the lighted channel. Many surgeons perform VATS or thoracoscopy for this type of biopsy because of the superior visualization offered with thoracoscopy.

Excision of mediastinal cyst (39200): These cysts can originate from the thymus, pericardium, bronchogenic or esophageal duplication cysts. All of these are mediastinal and the common element of a cyst is it is fluid filled and lined with an epithelial wall (almost always benign). These also are frequently removed using VATS.

Excision of mediastinal tumor (39220): most commonly these refer to Schwannomas, teratomas, or other types of malignancies (thymectomy for Thymoma or thymic carcinoma has separate codes). These are almost always solid in nature and may require VATS or open technique for complete resection.

Mediastinoscopy, with or without biopsy (39400): This refers to a commonly performed cervical mediastinoscopy (video-assisted also being performed). This procedure is used to sample/biopsy mediastinal

lymph nodes most frequently to stage lung cancer but also to diagnose conditions with enlarged mediastinal lymph nodes both benign (histoplasmosis / sarcoidosis ) and malignant (Lymphoma / Metastatic cancer from other sites than lung). Applies to any kind of cervical mediastinoscopy.

Unlisted procedure, mediastinum (39499): Any mediastinal procedure not fitting into a described category).

Repair, laceration of diaphragm, any approach (39501): A procedure usually performed in the setting of trauma, can be performed through the chest (thoracotomy/thoracoscopic) or the abdomen (laparotomy/laparoscopy. This refers to an acute injury that is amenable to primary suture repair. If a prosthetic patch is necessary, refer to 39540 (repair of diaphragmatic hernia – traumatic.

Repair, diaphragmatic hernia (other than neonatal), traumatic; acute (39540): Almost always associated with blunt trauma and may be approached through the abdomen or chest. Can be a simple repair with sutures or with a patch as needed.

Repair, diaphragmatic hernia (other than neonatal), traumatic; chronic (39541): Same as above except that the traumatic incident occurred in the past. A patch is more frequently required.

Imbrication (i.e., plication) of diaphragm (39545): This is a procedure that is performed for diaphragmatic paralysis that can result in an elevated diaphragm that may impair lung function. The procedure can be performed via Thoracotomy or VATS or laparoscopy. The principle is to reef or plicate the flaccid diaphragmatic muscle stretching it flat to lower it and allow the lung to expand and ventilate better

Resection, diaphragm; with simple repair (e.g., primary suture) (39560): Usually performed for cancer or malignant involvement. Primary tumors of the diaphragm are very rare. More frequently lung cancer surgery is being performed and the diaphragm must be removed for a complete enbloc resection. As a side note – removal of the diaphragm and reconstruction during an extrapleural pneumonectomy (as for mesothelioma) is not considered a separate procedure but part of the extrapleural pneumonectomy.

Resection, diaphragm; with complex repair (e.g., prosthetic material, local muscle flap) (39561): Same as 39560 but requiring a reconstruction with a patch instead of just primary repair with sutures.

Unlisted procedure, diaphragm (39599): Diaphragmatic procedures in and of themselves are rare. This should be used for any surgeries involving the diaphragm not covered above.

Thymectomy, transcervical approach (60520): This approach uses a collar incision and a retracting arm to gain access to the anterior mediastinum dissecting the thymus up and removing through this neck incision. It is more frequently used for “normal” thymus glands and not for thymomas or tumors.

Thymectomy, transthoracic approach (60521): Almost always refers to a sternotomy and approach similar to a heart surgery with removal of the thymus via this wide exposure. Most frequent approach for larger tumors.

Thymectomy, transthoracic approach, with radical mediastinal dissection (60522): Same as 60521 but with additional resection of pericardium, innominate vein, phrenic nerve and lymph nodes.

Thoracoscopy with mediastinal and regional lymphadenectomy (+32674) List separately in addition to primary procedure code: Removal of lymph nodes using a minimally invasive approach from the mediastinum.

Lymphadenectomy or lymph node dissection is the surgical removal of one or more groups of lymph nodes. Do not code for removal of one lymph node. It is almost always performed as part of the surgical management of cancer. Do not code as primary procedure.
Do not use for thoracotomy (use 38746)

Thymus, resection via Thoracoscopy unilateral or bilateral (32673): Minimally invasive approach to resection of the thymus gland (one or both sides)

**Esophagoscopy**

Esophagoscopy (43200): Use of a flexible or rigid esophagoscope to examine the internal lumen of the esophagus.

Esophagoscopy with biopsy (43202): Use of a flexible or rigid esophagoscope to obtain a biopsy of the esophageal mucosa or of an esophageal lesion.

Esophagoscopy with removal of foreign body (43215): Use of a flexible or rigid esophagoscope to remove a foreign body from the internal lumen of the esophagus.

Esophagoscopy with insertion of stent (43219): Use of a flexible or rigid esophagoscope to place a stent to allow the passage of oral intake through a benign or malignant esophageal stenosis or obstruction.

Esophagoscopy with balloon dilation (43220): Use of a flexible or rigid esophagoscope with a balloon dilator to address a benign or malignant stenosis or obstruction.

Esophagoscopy with insertion of guide wire followed by dilation over guide wire (43226): Use of a flexible or rigid esophagoscope with guide wire placement which enables progressive esophageal dilatation with the use of enlarging rubber dilating instruments.

Esophagoscopy with ablation of tumor (43228): Use of a flexible or rigid esophagoscope and a device to locally destroy an esophageal malignancy. Types include: photodynamic therapy (PDT), Nd-Yag laser, and radiofrequency ablation.

Esophagoscopy with endoscopic ultrasound examination (EUS) (43231): Use of a flexible or rigid esophagoscope with an endoscopic ultrasound probe. This is used to determine the depth of tumor invasion and to assess the presence of paraesophageal lymph nodes with both enable the proper staging of esophageal cancer.

Esophagoscopy with transendoscopic ultrasound-guided fine needle aspiration (43232): Real-time fine-needle aspiration (FNA) may be performed with ultrasound guidance to prove the presence or absence of cancer within paraesophageal lymph nodes.

Upper gastrointestinal endoscopy, diagnostic (43235): Use of a flexible endoscope to examine the esophagus, stomach, pylorus and proximal duodenum. This differs from Esophagoscopy (43200) which involves examination of the esophagus alone.

Upper gastrointestinal endoscopy with endoscopic ultrasound examination limited to the esophagus (43237): Same as esophagoscopy with EUS, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with transendoscopic ultrasound-guided FNA (43238): same as Esophagoscopy with transendoscopic ultrasound-guided fine needle aspiration, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with biopsy (43239): Same as Esophagoscopy with biopsy, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with dilation of gastric outlet for obstruction (43245): Use of a flexible endoscope to examine the esophagus, stomach, pylorus and proximal duodenum with pyloric dilatation for obstruction of the stomach. May be performed after esophagectomy in patients with gastric emptying problems.

Upper gastrointestinal endoscopy with directed placement of percutaneous gastrostomy tube (43246): Use of a flexible endoscope to examine the esophagus, stomach, pylorus and proximal duodenum and then to place a percutaneous feeding tube into the stomach with endoscopic guidance.

Upper gastrointestinal endoscopy with removal of foreign body (43247): Same as Esophagoscopy with removal of foreign body, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with insertion of guide wire followed by dilation of esophagus (43248): Same as Esophagoscopy with insertion of guide wire followed by dilation over guide wire, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with balloon dilation of esophagus (43249): Same as Esophagoscopy with balloon dilation, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with transendoscopic stent placement (43256): Same as Esophagoscopy with insertion of stent, except entire upper GI tract is evaluated with endoscope.

Upper gastrointestinal endoscopy with ablation of tumor (43258): Same as Esophagoscopy with ablation of tumor, except entire upper GI tract is evaluated with endoscope.

## Esophagus Resection

Transhiatal - total Esophagectomy, without thoracotomy with cervical esophagogastrostomy (43107): Removal of the esophagus through an upper midline laparotomy and a neck incision. Intestinal continuity is restored by the formation of a gastric tube with an anastomosis between the gastric tube and remaining cervical esophagus.

Three Incision - Total Esophagectomy with thoracotomy; with cervical esophagogastrostomy (43112): Removal of the esophagus through an upper midline laparotomy, a right thoracotomy and a neck incision. Intestinal continuity is restored by the formation of a gastric tube with an anastomosis between the gastric tube and remaining cervical esophagus.

Ivor-Lewis - partial esophagectomy, distal two thirds, with thoracotomy and separate abdominal incision (43117): Removal of the distal two thirds of the esophagus through an upper midline laparotomy and a right

thoracotomy. Intestinal continuity is restored by the formation of a gastric tube with an anastomosis between the gastric tube and remaining esophagus within the right chest.

Thoracoabdominal-partial esophagectomy, thoracoabdominal approach (43122): Removal of the distal esophagus through a left thoracoabdominal approach with anastomosis of the stomach to the distal esophagus in the left chest.

Minimally invasive esophagectomy: Removal of the esophagus via minimally invasive technique.

Minimally invasive esophagectomy, Ivor Lewis approach **(43287)**: Removal of the distal two thirds of the esophagus by laparoscopy and a right thoracoscopy. Intestinal continuity is restored by the formation of a gastric tube with an anastomosis between the gastric tube and remaining esophagus within the right chest.

Minimally invasive esophagectomy, abdominal and neck approach **(43286)**: Removal of the entire esophagus laparoscopy and a left neck incision. Intestinal continuity is restored by the formation of a gastric tube with an anastomosis between the gastric tube and remaining cervical esophagus within the neck.

Total esophagectomy without thoracotomy; with colonic interposition or small intestine reconstruction (43108): Removal of the esophagus through an upper midline laparotomy and a neck incision. Intestinal continuity is restored by the formation of a colonic or small bowel conduit with an anastomosis between the conduit and the remaining cervical esophagus.

Total esophagectomy with thoracotomy; with colonic interposition or small intestine reconstruction (43113): Removal of the esophagus through an upper midline laparotomy, a right thoracotomy and a neck incision. Intestinal continuity is restored by the formation of a colonic or small intestine tube with an anastomosis between the gastric tube and remaining cervical esophagus.

Partial esophagectomy, cervical with free intestinal graft, including microvascular anastomosis (43116): Removal of a short segment of cervical esophagus through a neck incision with or without sternal extension. Intestinal continuity is restored by the free transfer of small bowel requiring anastomosis between the conduit and the remaining proximal and distal esophagus. Blood flow must also be established to the small bowel segment by arterial and venous micro-anastomoses.

Partial esophagectomy, with thoracotomy and separate abdominal incision with colon interposition or small intestine (43118): Removal of the distal two thirds of the esophagus through an upper midline laparotomy and a thoracotomy. Intestinal continuity is restored by the formation of a colon or small intestine conduit with anastomosis between the conduit and remaining esophagus within the chest.

Partial esophagectomy, distal two thirds, with thoracotomy only (43121): Removal of the distal esophagus through a left thoracotomy approach with anastomosis of the stomach to the distal esophagus in the left chest.

Partial Esophagectomy, thoracoabdominal with colon interposition or small intestine (43123): Removal of the distal esophagus through a left thoracoabdominal approach. Intestinal continuity is restored by the formation of a colonic or small intestine tube with an anastomosis between the conduit and remaining esophagus within the left chest.

Total or partial esophagectomy, without reconstruction with cervical esophagostomy (43124): Removal of the esophagus without re-establishment of intestinal continuity. An end cervical esophagostomy or "spit fistulae" is created.

Minimally invasive three incision esophagectomy, McKeown **(43288)**: The three hole technique consists of thoracic mobilization of the esophagus, laparoscopic construction of a gastric conduit and a cervical esophagogastrostomy via minimally invasive approach.

Conduit revision s/p esophagectomy: Reoperation on a patient with a previous esophagectomy to revise the conduit

**Esophagus-other procedures**

Thoracoscopy, surgical; with esophagomyotomy (Heller type) (32665): This is therapeutic procedure to dissect and split the muscle of the distal esophagus to treat achalasia done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments. This is done between the ribs.

Cricopharyngeal myotomy (43030): Surgical division of the cricopharyngeal muscle which is also referred to as the "upper esophageal sphincter."

Diverticulectomy of hypopharynx or esophagus with or without myotomy; cervical approach (43130): Removal of a diverticulum through a neck incision. The procedure most commonly includes a cricopharyngeal myotomy and is usually performed for a Zenker's diverticulum of the esophagus.

Diverticulectomy of hypopharynx or esophagus with or without myotomy; thoracic approach (43135): Removal of an esophageal diverticulum through a chest incision.

Laparoscopy, surgical, esophagogastric fundoplasty (e.g., Nissen, Toupet procedures) (43280): Use of laparoscopy to create a full or partial wrap of stomach around the distal esophagus. The procedure is usually performed for reflux.

Laparoscopic esophageal myotomy (43279): Use of laparoscopy to perform an esophageal myotomy (longitudinal division of the esophageal wall muscle while leaving the underlying esophageal mucosa intact). The procedure is done for esophageal motility disorders including achalasia.
Esophagomyotomy (Heller type); thoracic approach (43331): Longitudinal division of the esophageal wall muscle while preserving the underlying esophageal mucosa performed thru a thoracotomy.

Esophagostomy, fistulization of esophagus, external, cervical approach (43352): This refers to the creation of a "spit fistula", where either the end or side of the esophagus is brought out to exit on the skin of the neck. A drainage bag is often placed to drain saliva that is swallowed and exits onto the skin.

Gastrointestinal reconstruction for previous esophagectomy with stomach (43360): In patients who undergo esophagectomy, delayed restoration of gastrointestinal continuity may be performed. Reasons for not undergoing immediate reconstruction include mediastinal contamination from a perforation and hemodynamic instability. This code should be used when the stomach is utilized as the conduit for reconstruction.

Gastrointestinal reconstruction for previous esophagectomy with colon interposition or small intestine (43361): In patients who undergo esophagectomy, delayed restoration of gastrointestinal continuity may be performed. Reasons for not undergoing immediate reconstruction include mediastinal contamination from a perforation and hemodynamic instability. This code should be used when either the colon or small intestine is utilized as the conduit for reconstruction. Here, the blood vessels supplying either the colon or small bowel are left attached in their normal location within the abdomen.

Ligation or stapling at gastroesophageal junction for pre-existing esophageal perforation (43405): This procedure describes the division of the esophagus at the gastroesophageal junction to address an esophageal perforation. The esophagus is typically resected and a cervical esophagostomy is created. Often, tubes are placed within the stomach and small bowel to drain and enable enteral nutrition, respectively.

Suture of esophageal wound or injury, cervical approach (43410): Traumatic injuries to the esophagus may be addressed through direct suture repair. This code should be used when the esophageal injury is located within the neck.

Suture of esophageal wound or injury, transthoracic or transabdominal approach (43415): Traumatic injuries to the esophagus may be addressed through direct suture repair. This code should be used when the esophageal injury is located within the chest or abdomen.

Closure of esophagostomy or fistula, cervical approach (43420): This describes a local closure of a previously placed loop cervical esophagostomy which was created to divert oral secretions onto the neck and away from the distal esophagus.

Free jejunum transfer with microvascular anastomosis (43496): This refers to utilizing a piece of small bowel as a “free flap” to restore gastrointestinal continuity after esophagectomy. This code should be used when the vascular supply of the small bowel conduit is divided in the abdomen and then recreated utilizing blood vessels within the neck or chest.

Total gastrectomy with esophagoenterostomy (43620): Refers to total resection of the stomach with gastrointestinal continuity restored with the remaining small bowel in an end-to-end fashion.

Total gastrectomy with Roux-en-Y reconstruction (43621): Refers to total resection of the stomach with reconstruction performed different that 43620 (above). In this operation, a distal portion of small bowel is used for the anastomosis with the esophagus. This prevents more proximal small bowel contents, which contain significant quantities of digestive enzymes and bile, from refluxing up to the esophagoenteric anastomosis.

Excision esophageal lesion with primary repair, cervical approach (43100): Removal of a proximal esophageal lesion via cervical (neck) approach as opposed to a thoracic approach

Transoral fundoplication: Transoral incisionless fundoplication (TIF) is an endoscopic approach to reflux performed through the esophagus. TIF creates a wrap of stomach around the end of the esophagus creating a 240 degree partial wrap from the inside of the stomach.

Per oral endoscopic myotomy (POEM): Endoscopic technique to treat achalasia, using a submucosal tunnel to perform myotomy on circular muscle bundles in the esophagus

Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) without mesh (43281): Minimally invasive abdominal approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using sutures, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms.

Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) with mesh (43282): Minimally invasive abdominal approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using mesh, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms.

Laparoscopy, surgical, esophageal lengthening procedure (Collis) (43283): Secondary Procedure code: Collis gastroplasty is a technique for lengthening a "shortened" esophagus, a condition that often results from gastroesophageal reflux disease (GERD). The stomach acid that flows back into the esophagus in GERD causes tissue changes, inflammation and scarring that can sometimes shorten the esophageal size. It is typically done in conjunction with a fundoplication procedure to prevent reflux. Laparoscopy is a minimally invasive abdominal approach.

Nissen fundoplasty- laparotomy (includes partial fundoplication/wrap) (43327): Nissen fundoplication is a surgical procedure to treat gastroesophageal reflux disease (GERD). In GERD it is usually performed when medical therapy has failed. With a *paraesophageal* hernia, it is often used as component of the repair to prevent reflux. Laparotomy = open abdominal approach

Transthoracic Fundoplication- open thoracotomy (includes Belsey/Nissen) (43328): Open surgical approach to treat reflux where part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux.

Repair, paraesophageal hiatal hernia via laparotomy without mesh (43332): Open surgical abdominal approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using sutures, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms

Repair, paraesophageal hiatal hernia via laparotomy with mesh (43333): Open surgical abdominal approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using mesh either instead of sutures or to augment a suture repair, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms

Repair, paraesophageal hiatal hernia via thoracotomy without mesh (43334): Open surgical thoracic approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using sutures, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms

Repair, paraesophageal hiatal hernia via thoracotomy with mesh (43335): Open surgical thoracic approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using mesh, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms

Repair, paraesophageal hiatal hernia via thoracoabdominal approach without mesh (43336): Open surgical thoracoabdominal approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using sutures, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms

Repair, paraesophageal hiatal hernia via thoracoabdominal approach with mesh (43337): Open surgical abdominal approach to move the organs that have herniated into the chest back into the abdomen. The diaphragm is repaired using mesh, and part of the stomach is wrapped partially or completely around the esophagus in order to prevent further reflux symptoms

Esophageal lengthening procedure - open (Collis) Secondary Procedure code (43338): Collis gastroplasty is a technique for lengthening a "shortened" esophagus, a condition that often results from gastroesophageal reflux disease (GERD). The stomach acid that flows back into the esophagus in GERD causes tissue changes, inflammation and scarring that can sometimes shorten the esophageal size. It is typically done in conjunction with a fundoplication procedure to prevent reflux. Code the fundoplasty/fundoplication as primary. ”Open” refers to a traditional surgical incision on the abdomen rather than a minimally invasive approach.

Excision Esophageal lesion with primary repair, thoracic approach (eg: leiomyoma) (43101): Removal of an esophageal lesion and repair of the esophagus using a thoracic (chest) approach

Esophagoplasty with repair of TEF, cervical approach (43305): Esophageal reconstruction/repair as part of repair of a tracheoesophageal fistula via cervical (neck) approach

Esophagoplasty with repair TEF, thoracic approach (43312): Esophageal reconstruction/repair as part of a repair of a tracheoesophageal fistula via thoracic (chest) approach

Unlisted laparoscopy, esophagus (43289): Minimally invasive abdominal procedure of the esophagus, not covered above

Unlisted procedure, esophagus (43499): Any surgery involving the esophagus not covered above.

## Chest Wall & Neck

Major resection of chest wall (posttraumatic) (32820): An operation conducted for the reconstruction of a large (greater than two ribs) posttraumatic defect in the chest wall. The ribs are usually replaced with mesh or PTFE, although metallic rib struts or fasteners can be used as well.

Muscle flap, neck (15732): Surgeon rotates a neck muscle flap as an adjunct to surgery, typically used to buttress or augment a suture line, anastomosis or fill a space. Commonly used neck muscles are strap muscles, sternocleidomastoid muscle, levator scapulae.

Muscle flap, trunk (i.e., intercostal, pectoralis or serratus muscle) (15734): Used where a surgeon rotates a neck muscle flap as an adjunct to surgery, typically used to buttress or augment a suture line, anastomosis or fill the pleural space. Commonly used trunk muscles are the intercostal, serratus, pectoralis, or latissimus dorsi.

Excision of chest wall tumor including ribs (19260): Excision of ribs and attached muscles for a benign or malignant tumor of the chest wall. When three or less ribs are taken or if the defect is covered by the scapula, reconstruction may not be necessary.

Excision of chest wall tumor including ribs, with reconstruction (19271): Resection of the chest wall tumor with reconstruction of the defect, usually with plastic mesh (marlex, prolene), methylmethracralate/mesh sandwich or a muscle flap. Usually used for larger resections.

Excision of tumor, soft tissue of neck or thorax, subcutaneous (21555): Excision of a tumor in the skin/fat of the chest wall-typically a lipoma.

Excision of a tumor, soft tissue of neck or thorax, deep, subfascial, intramuscular (21556): Excision of a deep chest wall tumor that involves the muscles but not the ribs. These would usually be benign tumors such as a fibroma or a deep lipoma.

Radical resection of a tumor (e.g., malignant neoplasm), soft tissue of neck or thorax (21557): En-bloc, radical excision of a cancer of the chest wall muscles, involving the skin, fat and muscles. Typically it would be a desmoid tumor or a sarcoma (MFH-malignant fibrous histiocytoma, rhabdomyosarcoma).

Excision of rib, partial (21600): Removal of a part of a rib (but not the first for thoracic outlet syndrome), usually for a small tumor.

Excision of first and/or cervical rib (21615): Removal of the first rib or a cervical rib for TOS (Thoracic Outlet Syndrome)

Excision of first and/or cervical rib, with sympathectomy (21616): Rarely done now. Usually for Thoracic Outlet Syndrome with chronic arm pain from RSD (Reflex Sympathetic Dystrophy).

Radical resection of sternum (21630): Involves radical removal of the sternum for either a tumor or severe sternal infection.

Radical resection of sternum, with mediastinal lymphadenectomy (21632): Involves resection of the sternum and mediastinal lymph node dissection.

Hyoid myotomy and suspension (21685): Typically done as a suprahyoid laryngeal release to reduce tension on a cervical tracheal resection anastomosis. The hyoid bone is cut laterally on both sides to allow it to drop down and thus lower the larynx and trachea.

Division of scalene anticus, without resection of a cervical rib (21700): Usually done for a Thoracic Outlet Syndrome (TOS) variant where the muscle or a band from it impinges on the brachial plexus.

Division of scalene anticus, with resection of a cervical rib (21705): Usually done for a TOS variant where the muscle or a band from it impinges on the brachial plexus along with resection of the abnormal cervical rib.

Reconstructive repair of pectus excavatum or carinatum, open (21740): Repair of either of these two congenital chest wall deformities. Usually involves resecting several costal cartilages, a partial osteotomy of the sternum, and often placement of a temporary bar for stabilization (also known as a Ravitch repair.)

Reconstructive repair of pectus, minimally invasive approach (Nuss procedure), without thoracoscopy (21742): Placement of a Nuss transverse chest wall bar to push the sternum forward to repair a pectus excavatum.

Reconstructive repair of pectus, minimally invasive approach (Nuss procedure), with thoracoscopy (21743): Placement of a Nuss transverse chest wall bar to push the sternum forward to repair a pectus excavatum with the visual aid of thoracoscopy

Open treatment of sternum fracture with or without skeletal fixation (21825): Repair of a sternal fracture with sutures, wires, plates or bars.

Removal of sternal wire: Sternotomy incisions are typically closed with a series of wires to support the bone during healing. These are left in place unless the patient experiences irritation or infection

Unlisted procedure, neck or chest wall (21899): Unlisted procedure not described above.

**Miscellaneous**

Thoracoscopy, surgical; with removal of clot or foreign body from pericardial sac (32658): This is a therapeutic procedure to remove clot or a foreign object (such as a bullet) from the pericardium done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments. A drain is commonly left.

Thoracoscopy, surgical; with creation of pericardial window or partial resection of pericardial sac for drainage (32659): This is therapeutic procedure to drain fluid from the pericardium and remove a segment of the pericardium done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments. A drain is commonly left.

Thoracoscopy, diagnostic pericardial sac, with biopsy (32604): Minimally invasive approach to remove a sample of pericardial tissue for diagnostic purposes

Thoracoscopy, surgical; with total pericardiectomy (32660): This is an uncommon therapeutic procedure to remove the entire pericardium done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments.

Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass (32661): This is a procedure to remove a cyst, tumor or mass from the pericardium done via small incisions (approximately 1 to 3 cm.) with a scope and other instruments. The important distinction is the complete removal of abnormal tissue.

Thoracoscopy, surgical; with thoracic sympathectomy (32664): This is therapeutic procedure to divide or interrupt the sympathetic chain in the chest. It is commonly done to treat hyperhidrosis. The technique involves using small incisions (approximately 1 to 3 cm.) with a scope and other instruments.

Ligation thoracic duct (38381): Tying off or clipping the main lymph channel in the chest. Usually performed at a level just above the diaphragm on the right side and is commonly done for a chyle leak (chylothorax); can be approached by VATS or open methods. Also includes obliterating or ligating the cisterna chyli.

Intraoperative jejunostomy (44015): Placement of a tube in the jejunum during the course of another operation, usually an esophagectomy, gastrectomy or repair of a gastrointestinal perforation. Used for drainage, decompression or instillation of tube feedings.

Omental flap (49904): Omentum (usually the greater omentum) is brought through a subcutaneous tunnel or the diaphragm to a cover soft tissue defect, bronchial stump or other structure to stimulate granulation and promote healing.

Transthoracic thyroidectomy (60270): Removing part or all of the thyroid gland via a thoracic incision. Adding an upper sternal split to facilitate resection of a substernal goiter would not be in this definition (see below). Removing part or all of the thyroid gland by VATS would also be a transthoracic thyroidectomy.

Removal substernal thyroid, cervical approach (60271): Removal of part or all of the thyroid gland via a cervical incision. The use of an upper sternal split to facilitate a thyroidectomy which is partially substernal would still be considered a cervical approach, since this is the dominant incision.

Tube pericardiostomy (33015): This involves opening the pericardium and placing a tube into the pericardial space for drainage - may be placed percutaneously via needle and guide wire, via thoracoscopy or thoracotomy or subxiphoid. If no tube placed in the pericardial space, see: Thoracoscopy (VATS), surgical; with creation of pericardial window or partial resection of pericardial sac for drainage.

Pericardial window (33025): Opening a draining the pericardial space by making a small (usually 1 to 4 cm in diameter) hole in the pericardium. Done via thoracotomy or subxiphoid approach; if VATS used see: Thoracoscopy (VATS), surgical; with creation of pericardial window or partial resection of pericardial sac for drainage. If a tube is placed see: Tube pericardiostomy above.

SVC resection and reconstruction (34502): Removal of part or all of the superior vena cava with or without reconstruction.

Application of wound vac (97605, 97606): Negative-pressure wound therapy (NPWT) is a therapeutic technique using a vacuum dressing to promote healing in acute or chronic wounds. The therapy involves the controlled application of sub-atmospheric pressure to the local wound environment, using a sealed wound dressing connected to a vacuum pump. The continued vacuum draws out fluid from the wound and increases blood flow to the area. The vacuum may be applied continuously or intermittently, depending on the type of wound being treated and the clinical objectives.

Stereotactic radiosurgery (SRS) and stereotactic body radiotherapy (SBRT), surgeon participation (32701): Stereotactic radiosurgery (SRS) is a highly precise form of radiation therapy initially developed to treat small brain tumors and functional abnormalities of the brain. The principles of cranial SRS, namely high precision radiation where delivery is accurate to within one to two millimeters, are now being applied to the treatment of body tumors with a procedure known as stereotactic body radiotherapy (SBRT). Despite its name, SRS is a non-surgical procedure that delivers precisely-targeted radiation at much higher doses, in only a single or few treatments, as compared to traditional radiation therapy. This treatment is only possible due to the development of highly advanced radiation technologies that permit maximum dose delivery within the target while minimizing dose to the surrounding healthy tissue. The goal is to deliver doses that will destroy the tumor and achieve permanent local control.

Other Minor Procedure: Unlisted minor procedure

Other: Any procedure not covered by any of the above descriptions.

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**SeqNo:** 1500
**Long Name:** Primary Procedure
**Short Name:** Primary
**Definition:** Indicate whether this is the primary surgical procedure.

**Intent/Clarification**: Do not exclude any analyzed procedure; even if it is being done for palliative reasons.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: PREOPERATIVE DIAGNOSIS: Submucosal esophageal mass/mid esophagus. POSTOPERATIVE DIAGNOSIS: Submucosal esophageal mass/mid esophagus.PROCEDURE: Right thoracoscopy with enucleation of submucosal esophageal mass/resection, upper endoscopy. Multiple level intercostal nerve block. Captured as an analyzed or non-analyzed procedure? Not sure where or which procedure this fits. **If an esophagectomy for esophageal cancer was not done then this case would not be analyzed. If the mass was cancerous then it will be analyzed. Submit if cancer resection was done. Review op note and the pathology note.**

April 2019: We have a pt who had a primary proc of Ivor Lewis esophagectomy for esophageal cancer but during same operation had a lobectomy as an "other proc." My surgeon wishes to know if this pt would be in the esophagectomy population in the spring report 2019 or if the lobectomy in the same setting, excludes this pt. **It would go in as the esophagectomy; the lobectomy would be the 2nd procedure.**

April 2019: I would like some assistance in identifying whether or not this procedure type meets GTS inclusion criteria. Procedure performed - 1. Right thoracoscopic minimally invasive right lower (sleeve) lobectomy with bronchoplasty. 2. Pedicled pericardial fat pad flap. 3. Multiple level intercostal nerve blocks. 4. Flexible bronchoscopy. 5. Mediastinal lymph node dissection. **If the sleeve lobectomy was done for lung cancer then, yes, it meets criteria and is collected and analyzed. The primary procedure code is 32486.**

April 2019: Patient had a minimally invasive robotic esophagectomy= laparoscopic abdominal approach but an intrathoracic anastomosis was performed, no neck incision at all. Which of the esophageal resection codes best represents this procedure? **Ivor Lewis, minimally invasive, 43287**

May 2019: How would I code "Placement of endobronchial valves"? Done by bronch. **If done by a participating surgeon you should use code 31647. Use unlisted code and then free text in. If it was done by bronch team then it would not be captured.**

May 2019: I have a coding question. Procedure performed is a robotic wedge resection followed by a trisegmentectomy, linear sparing lobectomy. How do I code this? **Segmentectomy; 32668 and 32669. 32669 is primary.**

June 2019: My providers do a procedure referred to as a TEMLA. I believe it should be captured as "Thoracic lymphadenectomy, regional, including mediastinal and peritracheal nodes (38746)". I notice that both the open and VATS codes state that this should only be captured as an add-on procedure, not the primary. However, we often only perform a TEMLA as an outpatient procedure on its own before deciding to do a lung

resection. How should I best capture this? **This is a cervical approach – like a mediastinoscopy. You would not capture in this case.**
August 2019: Our surgeon is asking if this case will be included in the Lobectomy Index: Pancoast resection with chest wall, lobectomy and en bloc wedge. **Pancoast tumor code is not included in the Star rating or lobectomy analysis. It will be analyzed though.**
September 2019: Patient had a right thoracotomy MVR January 2019 and developed a chest wall hernia. He has robotic surgery in June for repair of the chest wall hernia with mesh.
What CPT code do I use for that procedure? **Use code 32800**
January 2020: I have a pt who had surgery for mediastinal lymphadenopathy, he also had lung nodules and a wedge was done. There was no cancer on final path. Do I collect this in heartbase? If so do I use the section for lung CA or the mediastinal mass resection. **Need cancer diagnosis and a resection procedure to count as a required analyzed lung cancer case.Mediastinal mass resection is an optional analyzed category.**
February 2020: Listed here are my procedures from the op-note: POSTOPERATIVE DIAGNOSES: Achalasia. Sigmoid esophagus. Aspiration pneumonia. PROCEDURES: Laparoscopic Heller myotomy. Laparoscopic Dor fundoplication. Upper endoscopy. Question: does the fundoplication put the procedure as an analyzed procedure? I know the myotomy is not an analyzed primary procedure**. Fundopliactions are analyzed, but only if it's for GERD/Hernia.**
February 2020: How do we code "robotic ivor lewis esophagogastrectomy"? **Minimally Invasive Ivor Lewis 43287 and then mark YES to the robotics question**

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**SeqNo:** 1510
**Long Name:** Procedure Unlisted – Specify
**Short Name:** ProcOth
**Definition:** Indicate the general thoracic procedure(s) not listed being performed during this operating room visit, free text up to 150 characters.

**Intent/Clarification:**

ParentLongName: Procedure
ParentShortName: Proc
ParentValue: = "Unlisted procedure, trachea, bronchi (31899)", "Unlisted procedure, lung (32999)", "Unlisted procedure, mediastinum (39499)", "Unlisted procedure, diaphragm (39599)", "Unlisted laparoscopy, esophagus (43289 )", "Unlisted procedure, esophagus (43499)", "Unlisted procedure, neck or thorax (21899)", "Other Minor Procedure" or "Other"
ParentHarvestCodes: 2300|2950|3230|3310|4210|3630|2190|4400|3970
October 2019: pt has a bronch, thorascopic lobectomy with mediastinal lymphadenectomy.
Is the mediastinal lymphadenectomy part of the lobectomy or do I enter this separately as another procedure? **Yes, collect the mediastinal lymphadenectomy, 32674 – VATS lymph code**

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**SeqNo:** 1520
**Long Name:** Procedure Unlisted – CPT
**Short Name:** ProcOthCPT
**Definition:** Indicate 5 digit CPT code(s) of unlisted procedure(s).

**Intent/Clarification:**

ParentLongName: Procedure
ParentShortName: Proc
ParentValue: = "Unlisted procedure, trachea, bronchi (31899)", "Unlisted procedure, lung (32999)", "Unlisted procedure, mediastinum (39499)", "Unlisted procedure, diaphragm (39599)", "Unlisted laparoscopy, esophagus (43289 )", "Unlisted procedure, esophagus (43499)", "Unlisted procedure, neck or thorax (21899)", "Other Minor Procedure" or "Other"
ParentHarvestCodes: 2300|2950|3230|3310|4210|3630|2190|4400|3970

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**SeqNo:** 1580
**Long Name:** Lung Cancer
**Short Name:** LungCancer
**Definition:** Indicate whether a major lung resection was performed for ~~known or presumed~~ lung cancer (e.g. wedge, segment, lobectomy, bilobectomy or pneumonectomy), open or VATS. If yes, complete clinical and pathological staging.

***Only primary lung cancer resections are required and will be analyzed.***

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification**: If yes, complete section F.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: A patient is treated for a spontaneous pneumothorax with a blebectomy (32655). His pathology report returns positive for invasive adenocarcinoma. In this case lung cancer was never suspected. Should this code be amended to a therapeutic wedge so that this case is analyzed? Should I check the known or suspected lung cancer box? Should clinical staging and pathology fields be completed? A **Lung resection was done. Indicate 'Yes' to 1580 and 'No' to 1630 and 1660**.
May 2019: Had a patient with back pain and was found to have an abnormality on MRI, then having a bone marrow biopsy that showed metastatic adenocarcinoma that was TTF1 positive, suggesting a lung origin. Further imaging discovered a left upper lobe nodule. The surgeon was asked to get more tissue for foundation 1 testing and for multiple receptors. The pathology came back with lung cancer and we already knew it would. Would this get coded as an analyzed procedure? It is therapeutic only in that it will help dictate oncology treatment. **This sounds like it was a diagnostic wedge vs a therapeutic wedge so it would not be analyzed.**
August 2019: I have a case that I am not sure how to complete. The pathologist states, 'It is difficult to exclude the possibility that this carcinoma represents a metastasis from the patient's known laryngeal primary (i.e.

pTXNXM1) as no definitive in-situ component is appreciated to support a pulmonary primary. Careful correlation with clinical & radiologic findings is required. If this were to be a pulmonary primary the findings would be pT1bN0.' There is no further clarification in the chart. Do I complete all lung cancer fields or consider the cancer metastatic? **You should follow up with your surgeon and / or pathologist on this. Go by what the consensus is for this case.**

August 2019: Our surgeons are asking what cases are considered Index Procedures for lobectomy and esophagectomy. Are multiple lobectomies and palliative lobectomies and esophagectomies for primary cancer included? **All of the procedures listed in the DCF in the Analyzed Procedure section are analyzed.**

September 2019: When a patient had say 5 therapeutic wedge resections, I'm under the impression I code for the first (32666) then code the 4 others with (32267) X 4 individually. Is that correct? Or just one (32267)? **Yes, that is correct.**

December 2019: Robotic wedge resection for pulmonary Nodule. Pathology report: Low grade B cell non-Hodgkin Lymphoma of mucosa-associated lymphoid tissue (MALT) No pathological staging noted.
Is this considered Lung Cancer? **Not a Lung cancer. Lymphoma is the primary disease**

January 2020: OR Report states during exploration the mass was identified which appeared to be on the chest wall and not the lung.Pathology report states Left upper lobe pleural based nodule sections shows a low grade spindle cell solitary fibrous tumor. No staging. Do I code this as Lung Cancer? **No, this not a lung cancer**

February 2020: The following is reported in the operative note: "Patient was found to have a left upper lobe lung mass suspicious for lung cancer. She was brought to the operating room for diagnostic wedge resection with possible anatomic resection." Procedure as follows from OP note: " The only mass appreciated was in the left upper lobe in the expected location. This was wedged out using several gold loads of the Ethicon 45-mm stapler. The mass was sent for frozen section."....."Frozen section came back as lung cancer favoring typical carcinoid tumor. Given that was likely typical carcinoid, anatomic resection was not indicated. "
My question is, do I include this as a lung cancer? No anatomic resection was done. It was staged in the pathology report as pT2a, N2. I think I would code this as a diagnostic wedge (32608)? **This is lung cancer case and a therapeutic wedge. Capture as 32666 VATS therapeutic wedge**

February 2020: I have a patient who underwent " 1. Left Video-Assisted Thoracoscopic Surgery. 2. Wedge Resection of Left Intrathoracic Tumor.) Op note states :" A firm tumor was readily noted and was free except its attachment to the left lower lobe. No involvement of the parietal pleura or the diaphragm was noted. Using the Endo-GIA stapling device with purple load staples, a wedge resection was performed of the tumor with the adjacent attached lung onto the tumor. The specimen was retrieved using an Endo bag and it was sent to pathology. The frozen section analysis demonstrated no obvious malignancy. There was necrosis, spindle cells, and possible cells suggestive of neuroendocrine features. The final histology to be determined following additional stains and inspection. The staple line was hemostatic. **" Look at your final path report. Answer NO to 1580 if no lung cancer. You do not have to enter the case if no lung cancer.**

April 2020: How would I code for a patient that had a wedge resection in July but came back a week later for a completion lobectomy? PATH REPORT:C. LUNG, RIGHT UPPER LOBE, LOBECTOMY:
COMPLETION LOBECTOMY FOR CANCER WEDGE RESECTION FROM JULY (S19-29571).
POST-SURGICAL CHANGES.
NO SIGNIFICANT HISTOPATHOLOGIC ABNORMALITY.
NEGATIVE FOR GRANULOMATOUS INFLAMMATION AND MALIGNANCY.
**This is a lobectomy for lung cancer and the wedge is pathologic confirmation of diagnosis.T stage comes from the wedge.**

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**SeqNo:** 1590

**Long Name:** Esophageal Cancer
**Short Name:** EsophCancer
**Definition:** Indicate whether an esophagectomy was performed for esophageal cancer. If yes, complete clinical and pathological staging.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:** If yes, complete section G.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

March 2019: Patient has an esophageal CA and also has a paraesophageal hernia. All workups that were done were for the esophageal Ca clinical staging with neoadjuvant chemo and radiation. Surgeon did a paraesophageal repair when he did the minimally invasive Ivor Lewis esophagectomy. I was going to code both even though all my pre-op work up for HH will be blank? Or do I just code the eophagectomy, coding the hernia repair as one of the procedures and check off no to 1620? **Just capture the esophageal cancer procedure information. Since the hiatal hernia was a secondary operation it would not be analyzed. Also, the hiatal hernia procedures are optional to collect.**
February 2020: Pt has the following documented in the op note prior to surgery: ..."history of squamous cell carcinoma of the midesophagus. She underwent chemotherapy and radiation and was thought to have a complete response and thus did not undergo any resection. She subsequently had a recurrence and was brought to the operating room for evaluation for a salvage esophagectomy. "Post op note: "The esophagus had cancer that was densely adhered to the membranous portion of the trachea and thus it was not resectable. Given the amount of tumor and the condition of the esophagus, it was felt that a palliative esophagectomy was still indicated."Since this is a recurrence, do I include it as an esophageal cancer case or answer NO to esophageal cancer? **Yes ,include as Esophageal Cancer case.**

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**SeqNo:** 1600
**Long Name:** Collecting Data for Thymus or Mediastinal Mass Resection
**Short Name:** ThymusMediastinalData
**Definition:** Indicate if the surgical procedure was a thymus / mediastinal mass resection AND you are collecting data and submitting data for thymus / mediastinal mass resection procedures.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:** If yes, complete section H.

Harvest Codes:

| Code: | Value: |
|---|---|

1 Yes

2 No

August 2019: Would a Ewing Sarcoma be entered into this database? Pt had the following procedure codes: 43337 Repair, paraesophageal hiatal hernia via thoracodabdominal approach with mesh, 31622 Bronch, 19271 Excision of chest wall tumor involving ribs with reconstruction, and 13101 Complex repair trunk 2.6-7.5cm**. Do not enter the Ewing Sarcoma. The primary procedure would be the paraesophageal repair. This is neither a thymus or mediastinal case.**

February 2020: Patient had robotic assisted resection of mediastinal lymph nodes, multilevel intercostal rib blocks, pleural biopsy and flex bronchoscopy for mediastinum adenopathy on CT after presenting to ED with abdominal pain. Multidiscipline physician team decided to approach lymph nodes. Diagnosis was lymphoma. We collected 32674, thoracoscopy with mediastinal and regional lymphyadenectomy as the (1490) primary procedure, based on the CPT coded billing data, and answered Yes to (1600) collecting data for thymus or mediastinal mass. Is this correct? This procedure code is analyzed for lung but not for mediastinal so should would not include this case? Also, should we not include this case since this is a diagnostic procedure? **Answer no to 1600. The entire case is non-analyzed and not required.**

---

**SeqNo:** 1610
**Long Name:** Collecting data for tracheal resection
**Short Name:** TrachealData
**Definition:** Indicate if the surgical procedure was a tracheal resection AND you are collecting data and submitting data for tracheal resection procedures.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:** If yes, complete section I.

Harvest Codes:

Code: Value:

1 Yes

2 No

January 2020: Is the intent of this module to collect data on tracheal resections done for cancer, or for any diagnosis? A recent patient had a tracheal tear repair for an injury that presumably occurred during intubation at another facility. Should this be abstracted here if we choose to submit tracheal data as a whole? **Tracheal resections for any reason.**

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**SeqNo:** 1620
**Long Name:** Collecting data for hiatal hernia or GERD
**Short Name:** HiatalHerniaData
**Definition:** Indicate if the surgical procedure was a hiatal hernia / GERD AND you are collecting data and submitting data for hiatal hernia / GERD procedures.

**This field is required for record inclusion. If missing data, the entire record will be excluded from the analysis.**

**Intent/Clarification:** If yes, complete section J.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: Patient has workup for dysphagia no symptoms of reflux etc. Has poorly relaxing sphincter patient goes to OR for myotomy and discovered in OR small Hiatal hernia. Tthat is then repaired intraop). Do I capture this case under Hiatal hernia/GERD if patient primary procedure was the myotomy? **Would not capture this case since the workup was not for a hernia. Patient had not symptoms for hernia. Found incidentally.**

May 2019: We have a pt with a Diaphragmatic left inguinal hernia that includes colon, small bowel and the tip of the pancreas concerning for incarceration and no reduction spontaneously. They had a laparoscopic reduction of left traumatic diaphragmatic hernia and left therapeutic thoracoscopic robotic assisted repair of diaphragmatic hernia. Is the correct procedure code for this procedure either a 39541 or 39599 (which is a minor code)? Can you explain why we only get some HH cases and not all? Is this procedure not significant enough for the STS? Our surgeons do a lot of HH's so I guess they can decide if they still want all the HH cases in the database or just the analyzed cases by STS. **Traumatic hernias are not the same as a hiatal hernias. With traumatic hernias the patient does not have the symptoms associated with a hiatal hernia.**

June 2019: We do not do very many Hiatal Hernia repairs at out hospital. Is the repair of a diaphragmatic hernia included in the hiatal hernia collection? Pt had a repair of diaphragmatic hernia as a 6 month old and now presents with recurrence at the age of 32. **These are different and not captured here. Surgeon would have indicated what type of hernia it was in the op note.**

July 2019: If a patient is going to have surgery primarily for a diverticulum or achalasia and a fundoplication happens to be done at the same sitting (no hiatal hernia present) do we include these cases or not since primary reason for surgery is something other than hernia and GERD? **No, do not include the complications that come with achalasia surgery of diverticular surgery are greater and different.**

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## Lung Cancer

**SeqNo:** 1630
**Long Name:** Lung Cancer Diagnosed ~~or Suspected~~ PreOp
**Short Name:** LungCancerSus
**Definition:** Indicate if lung cancer was diagnosed pre-operatively ~~or suspected pre-operatively~~. "Suspected" lung cancer cases will no longer be captured.

**Intent/Clarification:** Was there a pathological diagnosis of lung cancer prior to the lung resection? (*yes: lung cancer was diagnosed preoperatively; no: lung cancer was ~~only suspected~~* ***not diagnosed*** *preoperatively)* ***Only primary lung cancer resections are required and will be analyzed.***

Similar to the last version we will capture only cases of proven lung cancer based on pathology.

ParentLongName: Lung Cancer
ParentShortName: LungCancer
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2018: If it is not primary lung cancer the case should not be collected.
October 2018: Should "atypical cells" be considered a positive diagnosis? It is in some settings and not in others. **Yes, atypical cells should be considered a positive diagnosis.**
October 2018: Should we be capturing negative attempts at bronch and TTNA? **No, attempted bronchs and TTNA should not be captured.**
June 2019: Pt. had a right upper lobectomy on 5/16/2019. Pt. had a recent MI w/ Ptca on 2/2019 and was on Brilinta, lung lesion was an incidental finding during the MI admission, not a candidate for percutaneous bx per MD's note. Had a wedge resection that was positive for Adeno Ca and then proceeded with a lobectomy on the same OR visit (I coded it as a diagnostic wedge f/u by an anatomical resection)? 1630, Y or N, do i count the wedge as the pathological dx prior to the lung resection? yes to 1670 ? yes to 1790 ? **Lobectomy should be primary procedure. Select 'No' to seq. 1630 – did not have dx of lung ca. Select 'No' to seq. '1670'. Don't count biopsy done at time of surg as clinical path. Selelct 'No' to 1790.**
December 2019: Patient was diagnosed with suspicious LUL pulmonary nodule shown on cardiac CT screening. Subsequent PET/CT showed LUL subpleural nodule and also a RUL opacity. Biopsy of the LUL showed adenocarcinoma (bronchioloalveolar type) consistent with primary lung cancer. There was NOT a biopsy attempted of the right upper lobe lesion. She then underwent a bronchoscopy and mediastinoscopy and R2 and L4 lymph node stations were positive. Her working clinical stage was T1aN3M0, Stage IIIB adenocarcinoma left upper lobe lung. She received concurrent chemoradiation therapy to mediastinum, and then radiosurgery to the left upper lobe biopsy-proven adenocarcinoma. Most recently she underwent a therapeutic wedge resection of the right upper lobe lung tumor. Pathology revealed adenocarcinoma and was staged pTisN2. My question re: SEQ# 1630 - Do I answer 'Yes' since lung cancer was diagnosed preoperatively (the nodule that was NOT resected)? **NO**. **The LUL had the pathological diagnosis preoperatively and she received radiation to that primary lung cancer. This surgery was for the RUL lesion (2nd primary site) (not definitive pre-op pathology).**
February 2020: Pt had a outside FNA/ IR needle biopsy in 2017 that showed scant atypical cells; no definitive evidence of malignancy. Based off of the FAQ from October 2018 for Seq# 1630, atypical cells are considered positive, but with our path reading "no definitive evidence of malignancy", would I answer "no"? **Answer Yes**

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**SeqNo:** 1640
**Long Name:** Clinical Staging Method - Lung – Bronchoscopy

**Short Name:** ClinStagLungBronc
**Definition:** Indicate whether a bronchoscopy was performed to diagnose lung cancer.

**Intent/Clarification:** Bronchoscopy is a procedure in which a cylindrical fiberoptic scope is inserted into the airways. This scope allows the visual examination of the lower airways. During a bronchoscopy, a physician can visually examine the lower airways, including the larynx, trachea, bronchi, and bronchioles. The procedure is used to examine the mucosal surface of the airways for abnormalities that might be associated with a variety of lung diseases. Its use includes the visualization of airway obstructions such as a tumor, or the collection of specimens for the diagnosis of cancer originating in the bronchi of the lungs (bronchogenic cancer). It can also be used to collect specimens for culture to diagnose infectious diseases such as tuberculosis. The type of specimens collected can include sputum (composed of saliva and discharges from the respiratory passages), tissue samples from the bronchi or bronchioles, or cells collected from washing the lining of the bronchi or bronchioles. The instrument used in bronchoscopy, a bronchoscope, is a slender cylindrical instrument containing a light and an eyepiece or, more commonly, a direct video attachment. There are two types of bronchoscopes, a rigid bronchoscope is a metal tube that is use to visualize the airway. It has a larger lumen and larger instruments can be passed through it in addition to being able to ventilate the patient. A flexible bronchoscope is generally a smaller, flexible, fiber optic tube that has a smaller working port but is also easier to place into the airway.
**Looking around and not seeing anything does not count as staging. Unless there is a biopsy performed with the bronch it should not be counted. Or the course of the case is changed by the bronch.**

ParentLongName: Lung Cancer
ParentShortName: LungCancer
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: The cases that I have abstracted so far had Bronchoscopy with EBUS done , do I check off both 1640 and 1780 or do I just check off 1780 as the reason for the Bronch with the EBUS were one of the listed criteria for mediastinal staging ? **Mark both.**

October 2018: Should we be capturing negative attempts at bronch and TTNA? **No, attempted bronchs and TTNA should not be captured.**
December 2018: If a bronchoscopy is done in the OR prior to the actual surgery, should this be abstracted as yes in the how was lung cancer diagnosed question? **Can be used as clinical staging if the bronch was done for reasons other than placing the ET tube.**
February 2019: This question has been asked and is posted in the training manual "Should we be capturing negative attempts at bronch and TTNA? No, attempted bronchs and TTNA should not be captured." Can I clarify that "attempts" at needle biopsy and bronchoscopic biopsy should be interpreted as "non-diagnostic" samples were obtianed? The word "attempted" could be interpreted that the procedure was aborted for some reason and not done at all vs it was done and was non-diagnostic. What I believe this field to mean is: if a biopsy was done and did not yield a diagnosis- check "no" to bronchoscopy or TTNA. **Capture bronch or TTNA that are done, even if it is non diagnostic.**
August 2019: The way that the DCF says "How was lung cancer diagnosed?" is confusing, is the intention that you would only ever pick either Bronch or Needle Biopsy? I was under the impression that if both were

performed and tissue was sampled that I would say yes to both, but other data managers pointed out to me that the cancer was only diagnosed with one even though both were successfully completed procedures. I think my sticking point is that in the last version the STS was attempting to collect all of the clinical staging methods completed, but in this version perhaps the STS is not seeking that information any longer? If there is something in the training manual that already answers my question and I've missed it please feel free to just point me in the right direction, we've gone around with these sequences so many times that I do feel that I'm going a bit crazy**. Intent is to capture what method was used to diagnosis? It is not an either or question. You can select both.**
December 2019: Clarification: Multiple questions are asked regarding capturing TTNA and Bronch if the tissue comes back negative after being sampled. I am still not 100% clear, do we capture "yes" if the tissue was sampled but comes back, negative**? Capture all procedures perform, it is not related to whether they were positive or negative, only that it was performed**

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**SeqNo:** 1650
**Long Name**: Clinical Staging Method - Lung - Needle Biopsy
**Short Name**: ClinStagLungNeedle
**Definition:** Indicate whether a Needle Biopsy was performed to diagnose lung cancer

**Intent/Clarification**: ONLY refers to transthoracic CT-guided biopsy of the tumor. Include any biopsy in which a needle is placed through the skin, typically with radiologic guidance, in order to obtain a diagnosis. Typically this is done with CT guidance.

- Only **completed** needle biopsies should be captured. "Attempted" biopsies should not be captured.
- ENB (electromagnetic navigational bronchoscopy) should be captured in the bronch section. Fine needle aspiration done via bronch should be captured under bronchoscopy.

ParentLongName: Lung Cancer
ParentShortName: LungCancer
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2018: Should we be capturing negative attempts at bronch and TTNA? **No, attempted bronchs and TTNA should not be captured.**
January 2019: In the definition, it says that this "ONLY refers to transthoracic CT-guided biopsy of the tumor". I have a case that the surgeon did a biopsy within the same operation as the lobectomy. He performed a biopsy first and then once the pathology results came back, he proceeded with a lobectomy. Should I abstract this as yes for a needle biopsy? **Was this a wedge biopsy or a needle biopsy? If it was truly a needle biopsy then you can capture this sequence.**

---

**SeqNo:** 1660
**Long Name:** Clinical Staging Done For Lung Cancer
**Short Name:** ClinStagDoneLung
**Definition:** Indicate whether clinical staging was performed on this patient related to this lung procedure.

**Intent/Clarification:** Clinical staging is based on evidence gathered before primary treatment. Diagnostic and/or radiologic tests are performed to determine the type and extent of the cancer and used to guide treatment decisions.

ParentLongName: Lung Cancer
ParentShortName: LungCancer
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: In part of the preop Clinical Staging, an Octreotide Scan was done. Could that be considered a PET/CT scan? **No, two different studies**
September 2018: We are new to working with the data base and have a question regarding the roadmap under preop lung. Under the section of mediastinal tissue sampling/staging, our providers were not sure how to answer the question for clinical staging Method for lung during either a VATS or Wedge resection. Many times our providers are collecting the samples during the actual procedure and send the frozen pathology to be viewed while they are still in the OR. Based on the results the surgery may progress from a wedge resection to a full lobectomy. In this case should the pre tissue diagnosis question be answered as yes or no? **No as it was not done prior to surgery.**
December 2018: Patient had been being treated with antibiotics for a lung abscess seen on CT 13.0 x 8.0cm. After serial images it was not showing a decrease in size and surgery was planned for removal via lobectomy. Pre-op bronchial brushings were negative for malignancy. Final pathology shows cancer T4N0M0 (adenocarcinoma). If I answer no to clinical staging it doesn't open the fields for Final pathology. Do I answer yes to clinical staging anyway and leave all other fields blank. Cancer was not suspected? **This was an incidental finding of cancer. We recently discovered that the clinical staging field is a parent to the pathological staging fields which is should not be. This will be corrected on the next version. Until then you can check 'yes' to clinical staging done and then check 'no' on all the clinical staging types. Then enter the pathology staging.**
January 2020: Patient had both left upper lobe and right middle lobe cancer. The case was discussed at a lung cancer conference. Consensus was to consider a wedge resection of the mass in the right middle lobe with mediastinal lymph node dissection to give an accurate staging, subsequently consider chemoradiation or possible surgery on the left side. The patient had a R thoracotomy with wedge resection and mediastinal lymph node dissection. A month later patient had L thoracotomy with lobectomy and mediastinal lymph node dissection. A post-op office visit note after the second procedure says: I have discussed the case at the lung cancer conference and the consensus of opinion was to just observe it given that the lymph nodes were all negative and in all likelihood there were 2 separate primaries rather than a metastasis even though the histopathology was similar in both the cancers. How would I capture the patient's staging/various testing for each procedure. Include them on both procedures, just the first procedure (there was no repeat testing after the first procedure before the second), or enter side specific testing - for example: Bronchoscopy biopsy of

Left upper lobe,CT guided biopsy of Right lung mass. **Keep each operation connected with its related clinical staging and pathology. While Clinical staging such as PET scans or other means of staging may apply to more than one operation; a CT biopsy would usually be specific to the diagnosis and/or operation.**

---

**SeqNo:** 1670
**Long Name:** Preoperative Positive Tissue Diagnosis Obtained
**Short Name:** PreopPosTisOb
**Definition:** Indicate whether a positive tissue diagnosis was obtained prior to this operation.

**Intent/Clarification:**
This does include positive results from a bronchial brushing.

July 2019
For the purposes of the STS database "VATS staging" applies when biopsies are obtained during the VATS procedure. Examples include:

1) Pleural biopsy
2) Diaphragm biopsy
3) AP window lymph node or hilar lymph node is removed and frozen prior to proceeding with the lung resection
4) VATS wedge resection of a lesion other than the primary lesion for which the surgery is being done

What does not count is the wedge of a primary lesion followed by lobectomy due to that positive wedge. Neither does lymph node resection performed as part of the planned procedure. Although a visual inspection of the pleura is technically staging, it is inherent to performing any surgical procedure and would thus be of little value to collect. We are specifically looking for instances where tissue is obtained.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: If CT biopsy reveals "atypical cells suggestive of adenocarcinoma", are we to consider this a YES or NO to pre-op positive pathological diagnosis? **Yes**
June 2019: Pt. had a right upper lobectomy on 5/16/2019. Pt. had a recent MI w/ Ptca on 2/2019 and was on Brilinta, lung lesion was an incidental finding during the MI admission, not a candidate for percutaneous bx per MD's note. Had a wedge resection that was positive for Adeno Ca and then proceeded with a lobectomy on the same OR visit (I coded it as a diagnostic wedge f/u by an anatomical resection)? 1630, Y or N, do i count the wedge as the pathological dx prior to the lung resection? yes to 1670 ? yes to 1790 ? **Lobectomy should be primary procedure. Select 'No' to seq. 1630 – did not have dx of lung ca. Select 'No' to seq. '1670'. Don't count biopsy done at time of surg as clinical path. Selelct 'No' to 1790.**

February 2020: Pt had a outside FNA/ IR needle biopsy that showed "scant atypical cells; no definitive evidence of malignancy. " Would this be considered "no" for this field? **Answer Yes**

---

**SeqNo:** 1680
**Long Name:** Clinical Staging Method - Lung - PET or PET/CT
**Short Name:** ClinStagLungPET
**Definition:** Was PET scan or PET/CT used for clinical staging?

**Intent/Clarification:**
Positron emission tomography, also called PET imaging or a PET scan, is a type of nuclear medicine imaging. Nuclear medicine or radionuclide imaging procedures are noninvasive and, with the exception of intravenous injections, are usually painless medical tests that help diagnose medical conditions. These imaging scans use radioactive materials called radiopharmaceuticals or radiotracers.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2019: For seq #1680 - #1830, is there a time limit for how far tests should be looked at for staging. Example, a patient had a CT scan in April 2018 (which showed lung nodules), but a VATS was not performed until August of 2019. Should the CT scan be used for pre-op staging? **Was this this therapeutic or diagnostic? Were other diagnostic / imaging tests performed? If there are other reports use the latest one. However, go as far back as the work-up started. If that is all you have, you can use it.**

---

**SeqNo:** 1690
**Long Name:** Clinical Staging Method - Lung – CT
**Short Name:** ClinStagLungCT
**Definition:** Was CT scan used for clinical staging?

**Intent/Clarification:**
Computed tomography (CT) scan, also called computerized axial tomography (CAT) scan, is used to create cross-sectional images of structures in the body. In this procedure, x-rays are taken from many different angles and processed through a computer to produce a three-dimensional (3-D) image called a tomogram.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"

ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: Can we use a CT angiogram for clinical staging method CT? **Yes**

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**SeqNo:** 1700
**Long Name:** Clinical Staging Method - Lung - Brain CT Scan
**Short Name:** ClinStagLungBrainCT
**Definition:** Was a brain CT scan (with contrast) used for clinical staging?

**Intent/Clarification:**
CT scan of the brain with contrast is an acceptable means of staging the brain. **A CT scan of the head without contrast is not useful for staging the brain.**

A PET/CT skull scan is not the same as a brain CT scan with contrast.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

April 2020: Patient underwent right lower lobe VATS therapeutic wedge resection in January 2020 for RLL adenocarcinoma. Several months prior to this surgery, she was admitted to the hospital for two days in June 2019 due to episode of syncope. The work-up included a CT scan of Head and an MRI of head and neck. I just want to make sure I would NOT include these imaging scans as staging since they were performed for a different reason, even though the results were reviewed during the pre-operative work-up for lung cancer surgery? **Yes, include it as staging.**

---

**SeqNo:** 1710

**Long Name:** Clinical Staging Method - Lung - Brain MRI
**Short Name:** ClinStagLungBMRI
**Definition:** Was a brain MRI used for clinical staging?

**Intent/Clarification:** An MRI of the brain is an acceptable means of staging the brain.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1720
**Long Name:** Invasive Mediastinal Staging Performed
**Short Name:** ClinStagInvasive
**Definition:** Indicate if the patient underwent biopsies of mediastinal lymph nodes by endoscopic or surgical means.

**Intent/Clarification:** Frequently this will be noted in the H&P or consult notes. If the mediastinoscopy is done during the same OR trip but prior to the surgery it can be captured as clinical staging.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes, reason documented |
| 2 | Yes, reason not documented |
| 3 | No |

November 2018: Is it considered invasive mediastinal staging as "yes" if it is performed in the same OR entry as the main resection. Eg: patient has a biopsy proven adenocarcinoma, 3.3 cm lesion. It is scheduled for a Lobectomy, a mediastinoscopy is performed before the lobectomy, in the same OR entry, it means in the same operation. How should I answer the question #1720? **This is certainly invasive mediastinal staging.**
June 2019: The parameter on the 2.41 form says: "If documented → Operative/Clinic Note indicates Invasive Mediastinal Staging performed for the following reasons:" Can you clarify what "documented in the op/clinic note means" means? Does this mean it has to be specifically documented in the clinic or OP note....or can we go by diagnostic reports, regardless of whether or not reason for staging was "specifically documented in notes"? In other words does it have to say somewhere in the clinic or OP note that "mediastinal staging will be done for lesion >3 cm"? I guess the question is....if the lesion is documented in the CT or PET scan as 4cm and mediastinal staging is done without a specific reason being documented in clinic or OP note....which choice do we mark? Yes, reason documented (or) yes, reason not documented? **Physician documentation is preferred but you can use PET / CT scan. Don't need to see the specific wording of "staging done for…."**

**August 2019:** Patient had CT showing 3.9 cm mass with no enlarged lymph nodes. Seen by pulmonology and then bronch with EBUS was performed. During EBUS, brushing and needle biopsy of the mass was done, mediastinal lymph nodes were examined, but no biopsies taken of them. Patient then sent to surgeon and resection completed. Definition of 1720 reads: *Indicate of the patient underwent biopsies of mediastinal lymph nodes by endoscopic or surgical means.* Question: was the intent of this question meant to only capture mediastinal staging when a biopsy is taken, or would an EBUS without LN biopsy also be included? **An actual biopsy must be performed. The sensitivity of ultrasound examination alone is too low and biopsy is required for a yes in this field.**

---

**SeqNo:** 1730
**Long Name:** Invasive Mediastinal Staging - Lesion size > 3cm
**Short Name:** ClinStagInvasiveSize
**Definition:** Indicate if the reason the invasive mediastinal staging was performed was for a lesion > 3 cm.

**Intent/Clarification:**

ParentLongName: Invasive Mediastinal Staging Performed

ParentShortName: ClinStagInvasive

ParentValue: = "Yes, reason documented"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1740
**Long Name:** Invasive Mediastinal Staging - Mediastinal Lymphadenopathy on CT > 1 cm
**Short Name:** ClinStagInvasiveLymp hCT
**Definition:** Indicate if the reason the invasive mediastinal staging was performed was for mediastinal lymphadenopathy on CT > 1 cm.

**Intent/Clarification:**

ParentLongName: Invasive Mediastinal Staging Performed
ParentShortName: ClinStagInvasive
ParentValue: = "Yes, reason documented"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|

1 Yes

2 No

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**SeqNo:** 1750
**Long Name:** Invasive Mediastinal Staging - Ipsilateral Hilar Mediastinal Node FDG Uptake on PET
**Short Name:** ClinStagInvasiveHilar
**Definition:** Indicate if the reason the invasive mediastinal staging was performed was for an ipsilateral hilar mediastinal node FDG uptake on PET.

**Intent/Clarification:** definition includes "or nodes ≥ 1 cm in size."

ParentLongName: Invasive Mediastinal Staging Performed
ParentShortName: ClinStagInvasive
ParentValue: = "Yes, reason documented"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1760
**Long Name:** Invasive Mediastinal Staging - Central Tumor
**Short Name:** ClinStagInvasiveTumor
**Definition:** Indicate if the reason the invasive mediastinal staging was performed was for a central tumor.

**Intent/Clarification:** Central tumor location was defined as within 2 cm of the proximal bronchial tree, heart, great vessels, trachea, or other mediastinal structures.

ParentLongName: Invasive Mediastinal Staging Performed
ParentShortName: ClinStagInvasive
ParentValue: = "Yes, reason documented"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1770
**Long Name:** Invasive Mediastinal Staging – Other
**Short Name:** ClinStagInvasiveOther
**Definition:** Indicate if the reason the invasive mediastinal staging was performed was for another reason.

**Intent/Clarification:**

ParentLongName: Invasive Mediastinal Staging Performed
ParentShortName: ClinStagInvasive
ParentValue: = "Yes, reason documented"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1780
**Long Name:** Clinical Staging Method - Lung – EBUS
**Short Name:** ClinStagLungEBUSDefinition:
**Definition:** Was Endobronchial Ultrasound used for clinical staging?

**Intent/Clarification:** EBUS is an invasive procedure in which physicians use ultrasound devices on the end of a special bronchoscope or placed through a bronchoscope to examine the airways and the lung for exploration of the structures of airway walls, the surrounding mediastinum, and the lungs. It is commonly used to biopsy lymph nodes outside the airway wall. This does not include super dimensional bronchoscopy. EBUS done in the OR prior to surgery can be included here.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: The cases that I have abstracted so far had Bronchoscopy with EBUS done , do I check off both 1640 and 1780 or do I just check off 1780 as the reason for the Bronch with the EBUS were one of the listed criteria for mediastinal staging ? **Mark both.**

---

**SeqNo:** 1790
**Long Name:** Clinical Staging Method - Lung – VATS

**Short Name**: ClinStagLungVATS
**Definition:** Was a Video Assisted Thoracoscopic procedure used for clinical staging?

**Intent/Clarification:** Video-assisted thoracoscopic surgery (VATS) is a minimally invasive surgical technique used to diagnose and treat problems in the chest. During this surgery, a tiny camera (thoracoscope) and surgical instruments are inserted in the chest through small incisions. The thoracoscope transmits images of the inside of the chest onto a video monitor, guiding the surgeon performing the procedure. Video-assisted thoracoscopic surgery (VATS) can be used for many purposes, ranging from a biopsy to removal of tumors or entire lobes from the lung.

~~VATS exploration done in the OR prior to the actual procedure can be considered clinical staging. Additional disease could be found which could change the patients staging.~~

July 2019
For the purposes of the STS database "VATS staging" applies when biopsies are obtained during the VATS procedure. Examples include:

5) Pleural biopsy
6) Diaphragm biopsy
7) AP window lymph node or hilar lymph node is removed and frozen prior to proceeding with the lung resection
8) VATS wedge resection of a lesion other than the primary lesion for which the surgery is being done

What does not count is the wedge of a primary lesion followed by lobectomy due to that positive wedge. Neither does lymph node resection performed as part of the planned procedure. Although a visual inspection of the pleura is technically staging, it is inherent to performing any surgical procedure and would thus be of little value to collect. We are specifically looking for instances where tissue is obtained.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2019: Operation procedure on OP report states VATS wedge resection. In the OP note it states "Upon exploration, we found no evidence of pleural studding or pleural effusion. A second posterior incision was created". Do I include VATS staging on all operations that just state in the op note that they explored or only if Exploration is a listed procedure? This would include almost all VATS procedures. **No, looking around and not seeing anything does not count as staging. Unless there is a biopsy performed with the VATS staging it should not be counted. Or the course of the case is changed by the VATS.**
June 2019: Pt. had a right upper lobectomy on 5/16/2019. Pt. had a recent MI w/ Ptca on 2/2019 and was on Brilinta, lung lesion was an incidental finding during the MI admission, not a candidate for percutaneous bx per MD's note. Had a wedge resection that was positive for Adeno Ca and then proceeded with a lobectomy on the same OR visit (I coded it as a diagnostic wedge f/u by an anatomical resection)? 1630, Y or N, do i count the wedge as the pathological dx prior to the lung resection? yes to 1670 ? yes to 1790 ? **Lobectomy should be**

**primary procedure. Select 'No' to seq. 1630 – did not have dx of lung ca. Select 'No' to seq. '1670'. Don't count biopsy done at time of surg as clinical path. Selelct 'No' to 1790.**

September 2019: My question is whether we ONLY count VATS as clinical staging method if hilar or AP window lymph nodes are sent for frozen (per #3 in July 2019 entry) or do mediastinal LNs sent for frozen during the VATS lung resection surgery count as VATS clinical staging? Case in question: in a separate procedure, patient underwent bronch/EBUS of 4R, 4L and 7, all found to be negative. Surgeon then planned to do VATS lobectomy. Once in the chest via VATS approach, surgeon found what he thought was gross parietal pleural invasion (neg on final path) as well as enlarged 4R and level 7 LNs. He sent 4R & 7 LNS for frozen section prior to lobectomy. All were neg so proceeded to do lobectomy. He did not send hilar or AP window LN for frozen. Is this an example of VATS as a clinical staging method? **This should be counted as clinical staging method.**

January 2020: I have a patient that had a segmentectomy with lymph node removal that was sent to pathology. Several months later, the patient had a wedge resection for a different lesion. I am currently abstracting the second procedure. Do I count the first procedure as clinical staging for the second procedure in regards to the lymph nodes? **No. Only count lymph nodes collected during the index operation**

---

**SeqNo:** 1800
**Long Name:** Clinical Staging Method - Lung – EUS
**Short Name:** ClinStagLungEUS
**Definition:** Was Endoscopic Ultrasound used for clinical staging?

**Intent/Clarification:** EUS is a procedure that combines endoscopy and ultrasound to obtain images and information about the digestive tract and the surrounding tissue and organs. In EUS a small ultrasound transducer is installed on the tip of the endoscope placed into the esophagus (not the airway) allowing the transducer to get closer to internal organs. This generally permits more accurate and detailed images of those organs than ones obtained by traditional ultrasound done from the surface of the body.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1810
**Long Name:** Clinical Staging Method - Lung-Other
**Short Name:** ClinStagLungOth
**Definition:** Indicate if method/technology other than those listed was used for clinical staging.

**Intent/Clarification**: Indicate if any other method/technology was used for clinical staging.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1830
**Long Name:** Clinical Staging Method - Lung - Mediastinoscopy/Chamberlain
**Short Name**: ClinStagLungMedia
**Definition:** Was Mediastinoscopy or Chamberlain procedure used for clinical staging?

**Intent/Clarification**: Mediastinoscopy is a procedure that enables visualization of the contents of the mediastinum, usually for the purpose of obtaining a biopsy. Mediastinoscopy is often used for staging of lymph nodes of lung cancer or for diagnosing other conditions affecting structures in the mediastinum such as sarcoidosis or lymphoma. Mediastinoscopy involves making an incision approximately 1 cm above the suprasternal notch of the sternum, or breast bone. Dissection is carried out down to the pretracheal space and down to the carina. A scope (mediastinoscope) is then advanced into the created tunnel which provides a view of the mediastinum. The scope may provide direct visualization or may be attached to a video monitor. The Chamberlain procedure is used to biopsy lymph nodes in the center of the chest, or to biopsy a mass in the center of the chest. The Chamberlain procedure differs from a cervical mediastinoscopy by the location of the incision, and the location of the lymph nodes or mass to be biopsied. The Chamberlain procedure is used to biopsy lymph nodes or masses in the aorto-pulmonary window on the left side of the chest, or nodes in the hilar areas of the lung. (In contrast, the cervical mediastinoscopy procedure is used to biopsy nodes or masses to the front or side of thetrachea, or windpipe.) The aorto-pulmonary window is the area in the center of the chest bound by the aorta superiorly, and the pulmonary artery inferiorly. This area contains lymph nodes that filter lymph coming from the left lung, especially the left upper lobe. If a lung cancer is present in the left lung, the Chamberlain procedure is useful for staging the cancer (determining the extent of spread.) The hilar areas of the lung (the hilum) are the areas of the lung where the pulmonary artery and vein (the blood supply) join the lung.

Mediastinoscopy done in the OR just prior to resection can be included as clinical staging. All nodes from the path report count for the path staging.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 1850
**Long Name:** Clinical Staging Lung Cancer Tumor Size Known
**Short Name:** LungCaTumSzKnown
**Definition:** Indicate if the lung cancer tumor size is known.

**Intent/Clarification:**

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: If only a PET was done for pre-clinical staging before a Lung Cancer case and not a CT, how would I answer 1850? Do I leave it blank since I can only go off of my CT scan for my tumor size and staging as well as 1860 and 1880**? If a CAT scan was not done you can use the PET scan for the tumor size.**
August 2019: Per CT chest, patient had 20 mm pure groundglass opacity, no solid component. Surgeon noted increase in size from previous scans and given patient's high risk for developing lung CA, believed this was primary lung carcinoma with lepidic growth. No preop biopsy done. Surgical resection confirmed adenocarcinoma w/lepidic growth. Per July 2018 FAQ for #1860, for part-solid nodules we are to record size of solid component. What size should I record for this pure groundglass opacity where there is no solid component - is it 2 cm or do I answer NO to #1850 LungCaTumSzKnown so no size is required for # 1860?
**That's a great question. Say 'no' to 1850 so 1860 is not required.**
February 2020: PET Scan Large left upper lobe speculated pulmonary nodule measuring 1.5 x 1.2 cm with intense = 1.5 cm correct? Does the cm need to be tumors or can it be nodule or mass? **1.5 cm. Tumor, nodule and mass are essentially synonyms.**

---

**SeqNo:** 1860
**Long Name:** Clinical Staging Lung Cancer Tumor Size In cm
**Short Name:** LungCaTumSz
**Definition:** Indicate the tumor size of the dominant/most concerning lesion.

**Intent/Clarification:** Size of tumor should be taken from CT scan or PET scan. If neo-adjuvant treatment was completed, use tumor size prior to treatment.

How are small nodules reported on lung CT addressed for staging?
If there is no biopsy, the PET CT is negative, nodules are < 5 mm and the surgeon/oncologist chooses not to address these, do not consider them when staging. 40% of people over the age of 50 have small lung nodules which are not malignant.

ParentLongName: Clinical Staging Lung Cancer Tumor Size Known
ParentShortName: LungCaTumSzKnown
ParentValue: = "Yes"
ParentHarvestCodes: 1

July 2018: When it comes to answering Seq. # 1860, Clinical Staging tumor size, when the tumor is part-solid nonmucinous adenocarcinoma are we to follow AJCC guidelines and only document the solid component from CT scan? **Yes, record the solid component. Report what is listed by the surgeon who should be doing the clinical stage. This is usually in the note. But, if not, defer to the radiology report.**
July 2019: Do we add 1.9 x 1.5 cm to provide the tumor size? Example: CT chest in 12/2017 showed a right lower lobe 1.9 x 1.5 cm lesion. **Document the largest dimension; 1.9 cm.**
August 2019: Per CT chest, patient had 20 mm pure groundglass opacity, no solid component. Surgeon noted increase in size from previous scans and given patient's high risk for developing lung CA, believed this was primary lung carcinoma with lepidic growth. No preop biopsy done. Surgical resection confirmed adenocarcinoma w/lepidic growth. Per July 2018 FAQ for #1860, for part-solid nodules we are to record size of solid component. What size should I record for this pure groundglass opacity where there is no solid component - is it 2 cm or do I answer NO to #1850 LungCaTumSzKnown so no size is required for # 1860? **That's a great question. Say 'no' to 1850 so 1860 is not required.**
December 2019: If a PET scan or CT scan documents a tumor size of 4.6cm and the surgeons note documents 4cm for the tumor size, which size should I use? **Use CT scan**
February 2020: Seq 1850 and 1860 CT scan states tumor i markedly enlarged . PET CT states large hypermetabolic RUL lung mass no size . Surgeon states Tumor is 10 cm right upper lobe squamous cell carcinoma T4N1MO. Do i use the size of 10 CM or leave it blank? **If no size is documented on any of the pre-op imaging, then do not answer size question. Answer NO to 1850 and leave 1860 blank**

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**SeqNo:** 1870
**Long Name:** Lung Cancer- Invasion of Adjacent Structures
**Short Name:** LCInvAdjStr
**Definition:** Does imaging indicate that the tumor invades adjacent structure(s)?

**Intent/Clarification:** Based on **preop** testing, indicate whether the tumor appears to invade adjacent structures. If the pre-surgical testing does not show any invasion in adjacent area, but invasion is noted during surgery or in the pathology report, do not indicate 'yes' to this field. Only code what is found during the preop work up in clinical staging.

*There have been a number of questions regarding the changes in coding of invasion and separate nodules in the latest version of the Database Collection Form. In version 2.3, a "yes" response to Invasion of Adjacent Structures (#940, v 2.3) in the pre-treatment staging section led to a list of possible structures (#950-1110, v 2.3). These structures included an option for separate nodules in a different lobe. The option of separate nodules was included in this list to stay consistent with the T staging in the TNM staging system at the time the DCF was modified (September, 2014). The truth is, however, that separate nodules are not direct invasion and this led to a group consensus to change that portion of the DCF in the latest version to make the data collection form more accurate. Furthermore, this change adapts to the changes in T staging in the latest version of the TNM staging system for lung cancer (version 8).*

*The Database Collection Group decided that the question of direct invasion should refer only to that, the direct invasion of a tumor into an adjacent structure. In clinical staging this means that there is radiographic evidence*

*that the tumor is destroying or invading into an adjacent, non-pulmonary structure such as a tumor invading into a rib. There can also be clinical evidence of invasion such as hoarseness due to tumor invasion into the left recurrent laryngeal nerve, new diaphragm elevation due to phrenic nerve involvement or pain due to chest wall invasion. Of further note, the Training Manual (#1870, v2.41) provides a list of suggested structures for invasion. This is not an exhaustive list of all possible structures but a list of some of the common structures. Additional structures not mentioned in that list include, for example, the phrenic nerve, the recurrent laryngeal nerve, the thymus and the sympathetic trunk. If there is question of invasion into an invasive structure not included, we would encourage you to discuss with your surgeon.*
*What does this mean for separate nodules? Basically they are not considered in the clinical staging portion of version 2.41 of the DCF. This was due to the Database Collection Committee's attempt to eliminate as many fields that we felt were of low value to the database. This does not mean that consideration of separate nodules was removed altogether from the database. On the contrary, the existence of separate, proven cancer nodules is part of the pathologic T staging when we have histologic proof that those nodules are actual cancers related to the primary cancer being treated.*

Adjacent structures such as: chest wall, diaphragm, pericardium, mediastinum, heart, great vessels, trachea, esophagus, vertebral body, and carina.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 1880
**Long Name:** Lung Cancer T Stage
**Short Name:** ClinStageLungTumor
**Definition:** Indicate the appropriate descriptor for lung cancer tumor staging. Clinical staging is based on the PRE-TREATMENT ESTIMATED staging workup which may include CT scan, PET scan, endoscopic ultrasound, etc. (Tis - T4).

**Intent/Clarification:**

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|

1 Tis
2 T1
3 T2
4 T3
5 T4

December 2018: Quick Question regarding pre-operative staging. Patient's H&P states, 'PET 10/1/15 with 7.9 x 5 cm confluent density posterior right lower lobe w/ SUV 9.4 may reflect cavitation decreased in size compared to 8/28/15 when CT measured 8.3 x 5.7 cm. CT Chest 5/1/18 with 6.4 x 5.9 x 6.6 cm soft tissue density in the medial aspect of the right lung base....' The physician documents in his H&P that the 'patient has squamous cell carcinoma - clinically T2bN0M0 I (stage IB).' if you use the measurements from the most recent CT scan (5/1/18), it would make this a T1 stage. So do you go by physician documentation (T2), largest measurement, or most recent CT scan? Any help is appreciated. **Use the most recent scan. Based on the information provided this is a T3 tumor.**

---

**SeqNo:** 1890
**Long Name:** Lung Cancer Nodes – N
**Short Name:** ClinStageLungN
**Definition:** Indicate the appropriate descriptor for the lung cancer nodal metastases. All nodes > 1cm on CT or PET/CT are considered positive. All PET positive nodes are considered positive. Results of previous invasive staging (EBUS, Mediastinoscopy) should be included here.

Clinical staging is based on the PRE-TREATMENT ESTIMATED staging workup which may include CT scan, PET scan, endoscopic ultrasound, etc.

**Intent/Clarification:** Code nodal involvement (if any.)
Ipsilateral = same side as tumor,
Contralateral= opposite side

(Lymph nodes may be reported by station #. Generally speaking ipsilateral (same side as tumor) lymph node with double digit numbers are N1 lymph nodes, ipsilateral lymph nodes with single digits are N2 lymph nodes, contralateral (opposite side as tumor) lymph nodes of any number are considered N3)

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|

| | | |
|---|---|---|
| 1 | N0 | No regional lymph node metastasis |
| 2 | N1 | Metastasis in ipsilateral peribronchial or hilar and intrapulmonary nodes. Includes direct extension |
| 3 | N2 | Metastasis in ipsilateral mediastinal and/or subcarinal lymph nodes |
| 4 | N3 | Metastasis in contralateral mediastinal or contralateral hilar nodes, ipsilateral or contralateral scalene or supraclavicular nodes |

July 2019: I need guidance please on how to capture the pre op PET/CT scan findings shown below for Seq #1890 and Seq #1900. IMPRESSION: Prominent focal hypermetabolism corresponding to hilar lymphadectomy consistent with metastatic adenopathy. **Hilar is level 10 lymph node, so this would be N1 (assuming it's on the same side as the tumor) for #1890 based on PET alone. #1900 would be M0 based on this. Other things can change the staging though, so always verify with your surgeon if still unsure.**

December 2019: If CT/PET shows mediastinal nodes reactive, but CT biopsy or mediastinoscopy are negative for meth, should the N - clinical staging be based on the CT ( N2) or based on the final mediastinoscopy (N0) dx? Indicate the appropriate descriptor for the lung cancer nodal metastases. All nodes > 1cm on CT or PET/CT are considered positive. All PET positive nodes are considered positive. Results of previous invasive staging (EBUS, Mediastinoscopy) should be included here. **Pathology overrules the radiology findings. NO from the MED**

---

**SeqNo:** 1900
**Long Name:** Lung Cancer Metastasis – M
**Short Name:** ClinStageLungM
**Definition:** Indicate the appropriate descriptor for the lung cancer distant metastases.

**Intent/Clarification:** Clinical staging is based on the PRE- TREATMENT ESTIMATED staging workup which may include CT scan, PET scan, endoscopic ultrasound, etc.

Metastasis or metastatic disease (sometimes abbreviated mets), is the spread of cancer from one organ to another non-adjacent organ or part.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | M0 | No distant metastasis |
| 4 | M1 | Distant Metastasis |

July 2019: I need guidance please on how to capture the pre op PET/CT scan findings shown below for Seq #1890 and Seq #1900. IMPRESSION: Prominent focal hypermetabolism corresponding to hilar lymphadectomy consistent with metastatic adenopathy. **Hilar is level 10 lymph node, so this would be N1 (assuming it's on**

**the same side as the tumor) for #1890 based on PET alone. #1900 would be M0 based on this. Other things can change the staging though, so always verify with your surgeon if still unsure.**

July 2019: Pt. underwent a rul segmentectomy for adenocarcinoma. Final path report states all lymph nodes are benign with the adenocarcinoma focally involves the visceral pleura surface and margins are free. For sequence 1910-1960, what should I put? **You will need to look at the pathology report for TNM staging.**

---

**SeqNo:** 1910
**Long Name:** Clinical Staging - Lung – Result
**Short Name:** ClinStageLungResult
**Definition:** Indicate the diagnosis for lung cancer as reported in the final pathology report.

Intent/Clarification: The intent is to capture only primary lung cancer cases. If the patient is found to have metastatic lung cancer, indicate this as "No cancer found, benign tumor" option. We will update the definition in the next version to be "No primary lung cancer found, benign tumor or metastatic disease".

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code | Value |
|---|---|
| 1 | No cancer found, benign tumor |
| 2 | Tumor present |

October 2018: If the patient had induction therapy and had a "pathologic complete response" check "Tumor Present" as long as there was an initial biopsy documenting lung cancer. Pathologic complete response means no viable tumor is identified in the specimen by the pathologist. This can only occur in patients who have undergone induction therapy.

October 2018: A patient previously had a bilobectomy, chemo, and XRT for lung cancer and returns now, 2 years later with a positive needle biopsy= metastatic Ca with squamous features, but PET is concerning for activity with prostate. A completion pneumonectomy is performed and final path reads "Focal residual squamous cell CA". 1) Should this patient not be included in the data registry at all? 2) Is recurrence still primary or actually considered to be metastatic? 3) If patient is included, do I code "No cancer found, tumor benign" since it is not the initial primary lung CA? **Include if this is a new primary lung Ca.**

July 2019: I have been abstracting and gathering information for STS submission. If our surgeon performed a Diagnostic left thoracoscopy. Lung tumor was attached to heart and surgery had to be terminated. How do we answer "Final Pathology Staging": (No Cancer)? **If a lung resection was not done, do not need to collect the case.**

September 2019: I was looking in the training manual and am a little confused. I thought that used to be if a patient came to the OR with the suspicion of a lung cancer and a lobectomy was performed, cancer or not, it was included in the database. That's why the field where you answer "Tumor present" or "No cancer found benign tumor " is there. But now the way it reads, the way I see it, is that if no cancer is found you don't have

to include it in the database. I also was not aware that Thymectomies, GERD, and Hiatal Hernias were optional modules. Is this all something new or am I looking at it wrong? **If the patient does not have cancer you do not have to enter the case. It will not be analyzed.**

December 2019: Patient had lobectomy with path report stating EPITHELIOID HEMANGIOENDOTHELIOMA, another malignant vascular tumor - Path Staging: pT1pNo. Should we select "No Cancer Found, Benign tumor"? **All primary lung malignancies should be captured. Lung cancer with location, complete pathological staging under Lung cancer**

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**SeqNo:** 1920
**Long Name:** Pathologic Staging - Lung Cancer – T
**Short Name:** PathStageLungT
**Definition:** Indicate the appropriate descriptor for the lung cancer primary tumor based on final pathology report.

**Intent/Clarification:** Look for pathology staging on the final pathology report.

**Examples:** A patient was diagnosed with lung cancer (T3) prior to surgery and has been treated with chemo and radiation. A lobectomy was performed following chemo and radiation. The tumor came back as negative for cancer. Would I still put T3 for original tumor or T0? **T0; the patient had pre-operative chemo and radiation.**

Patient has wedge resection which shows Adenocarcinoma. The patient returns 1 week later for lobectomy. No positive nodes, lung tissue is free of malignancy. For lobectomy procedure staging is the original diagnosis with that tumor size and pathology used? **Use the reported tumor size on CT or PET for clinical T stage. Use the actual measurement of the tumor from the wedge resection path report for pathologic staging.**

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 7 | TX | Primary Tumor cannot be assessed, or tumor proven by the presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy |
| 8 | T0 | No evidence of primary tumor |
| 9 | Tis | Carcinoma in situ; squamous cell carcinoma in situ (SCIS); Adenocarcinoma in situ (AIS): adenocarcinoma with pure lepidic pattern, <=3 cm in greatest dimension |
| 10 | T1mi | Minimally invasive adenocarcinoma: adenocarcinoma (<=3 cm in greatest dimension) with a predominantly lepidic pattern and <=5 mm invasion in greatest dimension. |
| 11 | T1a | Tumor <=1 cm in greatest dimension. A superficial, spreading tumor of any size whose invasive component is limited to the bronchial wall and may extend proximal to the main bronchus also is classified as T1a, but these tumors are uncommon. |
| 12 | T1b | Tumor >1 cm but <= 2 cm in greatest dimension |

| | | |
|---|---|---|
| 13 | T1c | Tumor > 2 cm but <= 3 cm in greatest dimension |
| 14 | T2a | Tumor >3 cm but <= 4 cm at greatest dimension, or having any of the following features: 1. involves the main bronchus regardless of distance to the carina, 2. but without involvement of the carina; invades visceral pleura (PL1 or PL2); 3. associated with atelectasis or obstructive pneumonitis that extends to the hilar region |
| 15 | T2b | Tumor >4 cm but <=5 cm at greatest dimension |
| 16 | T3 | Tumor > 5 cm but <= 7 cm in greatest dimension or directly invading any of the following: parietal pleura (PL3), chest wall (including superior sulcus tumors), phrenic nerve, parietal pericardium; or separate tumor |
| 17 | T4 | Tumor > 7 cm or tumor of any size invading one or more of the following: diaphragm, mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, or carina; separate tumor nodule(s) in an ipsilateral lobe different from that of the primary |

October 2018: If the tumor was resected at a separate procedure use the T stage from the EMR.
November 2018: Pt has wedge operation for two synchronous primary tumors in right upper lobe tumor #1 Total tumor size: 1 cm in greatest diameter Invasive tumor size: 0.6 x 1 = 0.6 cm /AJCC 8th Edition: pT1a, N0 tumor #2 Total tumor size: 0.9 cm in greatest diameter (microscopic) - Invasive tumor size: 0.9 x 0.9 = 0.81 cm /Visceral pleural invasion: Present (PL1)AJCC 8th Edition: pT2 which pathological staging do I use the tumor with the largest total size or one with pleural invasion and higher path staging? **Higher stage – this will direct patient care.**
September 2019: Client had left upper lobectomy pathologically staged as T3N1. Three days later return to OR for mediastinoscopy in order to appropriately determine next best course of action. Level 7 lymph node positive for metastatic adenocarcinoma. Do I change the pathological staging to T3N2 as documented by the surgeon? Or, do i keep the the info on the first path report? Also I choose seq 3330(other) qnd 3830? **Separate DCF for the mediastinoscopy. Use the med pathology for the med DCF. Use original path report for the lobectomy. No need to document 3330 and 3830 on the lobectomy.**
October 2019: Final pathology results > Pathologic Stage Classification: Primary tumor (pT): pT2c
I clarified with my surgeon and the pathologist the stage is correst and is based on the visceral pleural invasion=present. "pT2c" is not an option on the drop menu on the DQR. Please advise? **T2c does not exist. It's either T2a or T2b.**
October 2019: Staging in pathology report as follows: " pT2: Tumor less than 2 cm in greatest dimension but with visceral pleural invasion." The problem is that there is not a choice for pT2, only pT2a or pT2b.
How should I answer this question in Sequence # 1920? **Tumors with visceral pleural involvement that are 4cm or less are classified as T2a.**
October 2019: If the pathology report on a lobectomy case shows moderately differentiated adenocarcinoma and well differentiated typical carcinoid tumor, which one should be included in the final pathological staging? if both should be documented, should they be recorded as two different cases? **Document the most advanced path. You can also document the second cancer as a secondary cancer.**

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**SeqNo:** 1930
**Long Name:** Lung - Final pathological staging - Visceral Pleura Invasion
**Short Name:** VisPleuraInv
**Definition:** Indicate if the final pathology report specifies visceral pleura invasion present.

**Intent/Clarification:** Visceral pleural invasion is indicated by PL1 or PL2 on the final path report.

ParentLongName: Pathologic Staging - Lung Cancer - T
ParentShortName: PathStageLungT
ParentValue: = "T2a" or "T2b"
ParentHarvestCodes: 14|15

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

January 2019: Why is Vis Pleural Inv only able to be checked if Path is 2A or 2B? We have cases that Path is T4 (or other T staging) AND Vis Pleural Invasion is Present. Why don't we won't to track/check all Vis Pleura Invasion no matter what the T stage is? **Visceral pleural invasion simply upstages any T1 to T2a tumor. A T3 or T4 patient could also have visceral pleural invasion. The T stage is more important to correctly capture then the visceral pleural invasion status at this time. We will look to update this in the next version.**
April 2020: Pathology report states: "Focal involvement of the visceral pleura is not excluded" and "visceral pleura invasion cannot be determined." Would this be considered a "no" since it does not indicate that invasion is present? **This would be a NO, must show clear invasion**

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**SeqNo:** 1940
**Long Name**: Pathologic Staging - Lung Cancer – N
**Short Name:** PathStageLungN
**Definition:** Indicate the appropriate descriptor for the lung cancer regional nodes based on final pathology report.

**Intent/Clarification:**

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 5 | NX | Regional lymph nodes cannot be assessed |
| 1 | N0 | No regional lymph node metastasis |
| 2 | N1 | Metastasis in ipsilateral peribronchial and/or ipsilateral hilar nodes, intrapulmonary nodes, includes direct extension |

| | | |
|---|---|---|
| 3 | N2 | Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s) |
| 4 | N3 | Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene or supraclavicular lymph node(s) |

February 2019: Patient initially staged T3N0M1b per pathology report. The tumor board met a couple of weeks later. Final staging T3N1M0. Should I use the staging from the path report or the corrected staging done by the tumor board? **Use the tumor board staging. There should be a formal change to the pathology report indicating this corrected staging.**
October 2019: Patient has 2 synchronous primary lung cancers**.** Largest tumor is squamous cell carcinoma in left upper lobe, resected by lobectomy. Smaller tumor is invasive adenocarcinoma in left lower lobe, resected by wedge resection. Per final path report, path stage for larger tumor is pT3N1 (metastatic squamous cell carcinoma found in 1 peribronchial node in lobectomy specimen). Our pathologists don't document pM in path report unless they find metastasis. For smaller tumor, path report is pT2aN0M1a. Staged M1a because adenocarcinoma of smaller tumor was found in pleura of lobectomy specimen, the larger tumor. We're instructed to capture clinical and pathologic stage for largest tumor. In this case largest tumor path stage in final path report is T3N1, presumed M0. Smaller tumor path stage is pM1a d/t adenocarcinoma found in pleura of larger tumor specimen. Should I capture M for larger tumor as M0 or M1a? **Clinical Stage: Assuming your surgeon did not dictate the clinical stage, you would use the largest nodule size to determine clinical T stage. Pathological Stage: The pathological stage submitted is for the most advanced disease as it will have the highest impact on 5 year survival. It is ok if this turns out not to be the same nodule/mass that was clinically staged – sometimes what the surgeon clinically suspects won't align with final pathology. Primary Procedure: The primary procedure is always the most invasive procedure as it is used for predicting perioperative risk. In this case the lobectomy would still be the primary procedure – even though the pathology entered is for the wedge.**

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**SeqNo:** 1950
**Long Name**: Lung CA Multi-station N2
**Short Name:** PathStageLungMultiN2
**Definition:** Indicate if the final pathology report specifies multi-station N2

**Updated Dec. 2019**
**Intent/Clarification**: ~~Multi-station N2 disease would be two positive nodes in separate stations. For example, if the tumor was in the RML and 4R and 7 were positive.~~ Multi-station N2 disease would be positive lymph nodes in two separate N2 stations.

ParentLongName: Pathologic Staging - Lung Cancer - N
ParentShortName: PathStageLungN
ParentValue: = "N2"
ParentHarvestCodes: 3

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |

2 No

---

**SeqNo:** 1960
**Long Name:** Lung CA Metastases
**Short Name:** PathStageLungM
**Definition:** Indicate the appropriate descriptor for the lung cancer metastases based on final pathology report.

**Intent/Clarification:**
Example:
Patient with clinical stage IIB lung cancer; no brain imaging was done. Had lobectomy; pathologic stage per path report was pT3pN0. Within 30 days of lobectomy was found to have brain metastasis. How should I code surgical pathologic M stage: M0 or M1b? **M0, pathological staging is coded at time of surgery.**

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | M0 | No distant metastasis |
| 4 | M1 | Distant metastasis |

July 2019: The pathologist graded the metastasis for a lung cancer patient as Mx. M0 and M1 are the only options. Should I select M0 or leave this field blank? **M0 as long as there were no known mets- Do not leave blank.**
July 2019: Patient with primary lung cancer and s/p Lobectomy. Path report notes, "Lymphatic invasion focally present." No Lung CA metastasis of M0 or M1 assigned in the path report. In the oncologists note post op, he states, "Lymphovascular invasion was present (pT2a pN0 cMX)." My question, is why is there no choice in the pathological staging for "Mx" since this designates metastasis cannot be measured? And, since I have the Mx in the oncologist's note but no Lung CA metastasis noted of either M0 or M1 in the path report, do I leave this blank? **Document M0 unless there is documentation of mets somewhere else. Generally, if mets is not documented assume MO – no mets.**
April 2020: Patient diagnosed with metastatic Ewing Sarcoma to right lung and had a wedge resection. Needle biopsy pre-op made issue diagnosis. Final path just states Ewings Sarcoma so how to you complete sequence 1960 and 1970 lungcahist? No nodes or nodal stations. Most of final pathology am unable to document in Cardiopulse due to primary diagnosis metastatic Ewing Sarcoma. **This is not primary lung cancer. Mark NO for seq. 1580**

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**SeqNo:** 1970
**Long Name:** Lung Cancer Histology
**Short Name:** LungCAHist
**Definition:** Indicate the appropriate descriptor for the lung cancer histology based on final pathology report.

**Intent/Clarification**: "carcinoid tumor" is a Neuroendocrine tumor. Code Adenosquamous Carcinoma as 'Mixed'.

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

Harvest Codes:

| Code | Value |
|---|---|
| 1 | Carcinoma in situ |
| 2 | Adenocarcinoma |
| 3 | Squamous cell |
| 4 | Large cell |
| 5 | Small cell |
| 8 | Low grade neuroendocrine (typical carcinoid) |
| 9 | Intermediate grade neuroendocrine, atypical carcinoid |
| 7 | Mixed |
| 10 | Other |

September 2018: How do we collect large cell neuroendocrine carcinoma in version 2.41? The option was available in 2.3 as high grade neuroendocrine, but there is no option for high grade neuroendocrine with the new version. **Mark 'Large Cell' in Histology and then in the Grade section mark 'High Grade'.**

October 2018: If the pathology is given for two lung nodules. One nodule is Large cell neuroendocrine carcinoma pT1cN1MX and the second is invasive adenocarcinoma, acinar predominant pT2N0MX. Would I use the pathology for the T1 tumor or the T2? **Large cell is more advanced per staging. Always choose the more advanced.**

December 2018: What is the Lung CA Histology and Grade for malignant mesothelioma, biphasic type? **This is not lung cancer. Respond 'no' to lung cancer. This case does not get submitted.**

January 2019: Pathology: Lung, left upper lobe, lobectomy. Malignant spindle cell neoplasm. See note. Note: findings are supportive of synovial sarcoma (pT2, pN0). Is this a lung cancer? What histology would I select? **Confirm with surgeon it is truly lung cancer. If it is select 'other' on the DCF.**

January 2019: Final Pathology results are Non-small cell carcinoma, not otherwise specified. See note. The differential diagnosis includes lymphoepithelioma-like carcinoma and large cell carcinoma. The negative EBER (ISH) is against lymphoepithelioma-like carcinoma. Clinical correlation is recommended to exclude metastasis from an unknown primary site. No further investigation is obtained and oncology is calling 1a disease. What histology do I code? **Ask the surgeon and pathologist**

May 2019: Pathology states that the histologic type is Pleomorphic Carcinoma, G4-undifferentiated. Does this qualify as large cell or mixed? And what should I code the grade? **Select 'Other' and 'G3'. In most institutions, undifferentiated and poorly-differentiated are considered the same thing.**

June 2019: Final path report showed histologic type to be-Atypical carcinoid tumor and Typical carcinoid tumor pT1b pN1, would this be coded as mixed or other? **Code mixed as a mix of two cancers**

August 2019: Lung cancer resection. Per final path report, " Invasive poorly differentiated non-small cell carcinoma (please see Comment). Comment: The sub classification of this tumor is problematic. By morphology

alone no obvious glands are keratin are identified and the possibility of a neuroendocrine tumor is raised. Multiple neuroendocrine immunohistochemical markers are negative. Both the best squamous immunohistochemical marker (p40) and adeno immunohistochemical marker (TTF-1) are strongly and diffusely positive. This has rarely been reported [Hayashi, T. Et. Al. "Non-small cell lung carcinoma with diffuse co-expression of thyroid transcription factor-1 and Np63/p40" Human Pathology (2018) 78, 177-181], and is of uncertain significance." How should I capture the histology for this lung cancer? **This is very unusual histologic characteristics, therefore, please code as 'other'. This will rarely, if ever, come up again.**
April 2020: How would I code this histologic type: Mixed invasive mucinous and non-mucinous adenocarcinoma? Would I list as Mixed or adenocarcinoma? Adenocarcinoma

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**SeqNo:** 1980
**Long Name:** Lung Cancer Histology Grade
**Short Name**: LungCAHistGrade
**Definition:** Indicate the appropriate descriptor for lung cancer grade based on the final pathology report.

**Intent/Clarification**:

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

Harvest Codes:

| Code | Value |
|---|---|
| 1 | Low grade (well differentiated) |
| 2 | Intermediate grade (moderately differentiated) |
| 3 | High grade (poorly differentiated) |
| 4 | Unknown / Not reported |

May 2019: Pathology states that the histologic type is Pleomorphic Carcinoma, G4-undifferentiated. Does this qualify as large cell or mixed? And what should I code the grade? **Select 'Other' and 'G3'. In most institutions, undifferentiated and poorly-differentiated are considered the same thing.**

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**SeqNo:** 1990
**Long Name:** Lung Cancer - Number of Nodes
**Short Name:** LungCANodes
**Definition:** Indicate the total number of nodes sampled/harvested.

**Intent/Clarification**: Total number of nodes will be listed on your final pathology report. Use the final pathology report from the day of surgery (resection) for the number of nodes.

Range is 0-50, usual is 5-15. Capture the total number of nodes harvested during surgery. Only count the number of nodes that were actually harvested. If nodes examined but not harvested or not found, do not count.

Node fragments – Differentiating node fragments from separate lymph nodes is a very difficult problem. Ideally the surgeon will count lymph nodes during the case and create a system to label specimens with the count as they leave the OR. This will permit the pathologist to report the actual lymph node count during the case in the path report. If the pathologist cannot, they will often report "lymph node fragments" which implies they cannot provide a lymph node count. In this circumstance, we have to conservatively assume that all those fragments come from a single node. If they report 10 fragments from station 7, one station 7 lymph node is the count. Please encourage your surgeons to develop a way of counting nodes in the case that can be conveyed in the pathology report.

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

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**SeqNo:** 2000
**Long Name:** Total Number Of Nodal Stations Sampled / Harvested
**Short Name:** LungCANodStat
**Definition:** Indicate the total number of nodal stations sampled / harvested. Lymph nodes included in the resected lung specimen should be counted as a station.

**Intent/Clarification:** Total number of stations can be found on your final pathology report. If the pathologist has not listed the total number of stations, you will need to count them yourself. Remember that the number of nodes sampled and the number of nodal stations will not necessarily match.
**Example:**
When capturing the number of nodal stations sampled do I include only the stations captured during the lobectomy procedure or do I also include the nodal stations sampled when the patient had a medistinoscopy a few weeks prior to the resection? **Capture all lymph nodes from the day of the definitive resection. This would include nodes from an EBUS/mediastinoscopy if it were done at the time of resection.**

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

September 2018: If the pathologist describes a sample as "lymph node, level 5 excision: Fragments of benign lymph node"; would we still count this nodel station even though it only contains fragments that will not be included in the total node count? **Yes, these fragments are part of a level 5 node so they count as one level 5 lymph node. If they have fragments from level 7 and from level 9 also they should be credited with three stations.**
September 2018: If you have stations 2R and 2L listed in your pathology report are these counted as 2 stations or 1? Same with stations 3 (3A and 3P) and 4 (4R and 4L). **These are all separate stations (2R, 2L, 3A, 3P, 4R,**

**4L).**

October 2018: Specimen also reports additional "hilar nodes". Should this be counted as an additional station? **Hilar nodes can be counted as a separate station if no level 10, 11, or 12 nodal stations are already reported in the path report.**

October 2018: The final pathology report indicates one parenchymal lymph node was harvested. Is this considered a station that will be counted as part of the total? **If listed on path report it should be included**

December 2018: If my physician states that he sent lymph nodes from levels 9, 7 and 5 and 6 but my final pathology comes back and states that only prevascular lymph nodes were sampled. Would I answer "4" to the total # of nodal stations sampled/harvested per my physician? **Go by the final pathology report, not what the surgeon stated.**

February 2019: To avoid double counting of stations in Seq #2000 when the pathologist lists all the stations out on the pathology report for right lung resection as 2R, 4R, 7, 8, 10R, 11R, 12R, peribronchial, and the lymph nodes included with the right upper lung specimen were identified as peribronchial lymph nodes. Do I capture this as 7 or 8 stations? Also, what stations does STS consider as peribronchial stations? **Level 12. You don't need to count it again.**

December 2019: This definition states "lymph nodes included in the resected lung specimen should be counted as a station". I feel like this contradicts what was stated at the AQO meeting. I have never counted the nodes in the actually lung resection sample. My example is:
A) Lung- right middle lobectomy: six lymph nodes, negative for tumor (0/6)
B) Level 7- six lymph nodes, negative for cancer (0/6)
C) Level 8- one lymph node, negative for cancer (0/1)
I would call this 2 lymph node stations and not 3- can you please clarify if I am correct. **Count all stations , including the lung specimen sample. The number of stations is 3**

February 2020: Pathology report provides, Nodal Stations Examined: = 6
Would this be 5 since we don't count 9R and 9L twice? **You do count 9L and 9R as separate stations. Confirm with your surgeon or pathologist.**
Nodal Stations Examined:
2R: Upper paratracheal
9R: Pulmonary ligament
10R: Hilar
11R: Interlobar
12R: Lobar
9L: Pulmonary ligament

---

**SeqNo:** 2010
**Long Name:** Lung Cancer - Pathology Margins
**Short Name**: LungCAPathMarg
**Definition:** Indicate whether pathology report indicated positive surgical margins.

**Intent/Clarification**:

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

Harvest Codes:

Code: Value:

1 Yes

2 No

July 2019: If the pathology findings documented as below, would this be captured in Seq# 2010 as Yes or No? If it can be captured as yes can you explain what is R1 and R2 please**?**
Margins: Bronchial Margin - Uninvolved by invasive carcinoma (carcinoma present in lung tissue adjacent to bronchial margin). Parenchymal Margin - Involved by invasive carcinoma. **Yes, the parenchymal margin was involved. R1 is microscopic and R2 is macroscopic ("gross" or seen by the naked eye). Ask your surgeon or pathologist which one was assigned.**

---

**SeqNo:** 2020
**Long Name:** Lung Cancer - Pathology Margins - Residual Tumor
**Short Name:** LungCAPathMargPosR
**Definition:** Indicate whether the positive surgical margins indicated in the final pathology report are R1 or R2.

**Intent/Clarification:** If R1 or R2 is not listed on the pathology report, ask your surgeon.

ParentLongName: Lung Cancer - Pathology Margins
ParentShortName: LungCAPathMarg
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | R1 | Microscopic residual tumor present |
| 2 | R2 | Macroscopic (gross) residual tumor present |

---

## Esophageal Cancer

**SeqNo:** 2030
**Long Name**: Clinical Staging Performed For Esophageal Cancer
**Short Name:** ClinStagDoneEsoph
**Definition:** Indicate whether clinical staging was performed on this patient related to this esophageal procedure. If yes, complete clinical and pathological staging.

**Intent/Clarification:** Clinical staging is the Pre-Treatment estimate of cancer. Indicate whether clinical staging was performed and if so choose the method(s).

ParentLongName: Esophageal Cancer
ParentShortName: EsophCancer
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2040
**Long Name:** Clinical Staging Method - Esophageal - PET or PET/CT
**Short Name**: ClinStagEsophPET
**Definition:** Was PET scan or PET/CT used for clinical staging?

**Intent/Clarification:** Positron emission tomography, also called PET imaging or a PET scan, is a type of nuclear medicine imaging. Nuclear medicine or radionuclide imaging procedures are noninvasive and, with the exception of intravenous injections, are usually painless medical tests that help diagnose medical conditions. These imaging scans use radioactive materials called radiopharmaceuticals or radiotracers. A PET CT fuses the PET images on a non-diagnostic quality CT scan to help clinicians localize the area of PET activity anatomically. An integrated PET/CT does NOT count as a dedicated, diagnostic CT as defined in SeqNo: 2050

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2050
**Long Name:** Clinical Staging Method - Esophageal – CT
**Short Name:** ClinStagEsophCT
**Definition:** Was CT scan used for clinical staging?

**Intent/Clarification:** Computed tomography (CT) scan, also called computerized axial tomography (CAT) scan, is used to create cross-sectional images of structures in the body. In this procedure, x-rays are taken from many different angles and processed through a computer to produce a three-dimensional (3-D) image called a tomogram. A CT scan to stage esophageal cancer must include the abdomen and pelvis and is typically done with IV contrast.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2060
**Long Name:** Clinical Staging Method - Esophageal – Bronchoscopy
**Short Name:** ClinStagEsophBronc
**Definition:** Was bronchoscopy used for clinical staging?

**Intent/Clarification**: Bronchoscopy is a procedure in which a cylindrical fiberoptic scope is inserted into the airways. This scope allows the visual examination of the trachea, main bronchi and central airways. During a bronchoscopy, a physician can visually examine the airways, including the larynx, trachea and 2 to 3 generations of bronchi. For staging of esophageal cancer, the procedure is used to examine the mucosal surface of the central airways for abnormalities that might be associated with the cancer invading these airways which would render them nonresectable. This staging test is most critical for esophageal tumors of the upper and middle third of the thoracic esophagus which is typically from 15 to 27 cm from the incisors.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2090
**Long Name:** Clinical Staging Method - Esophageal – EUS
**Short Name:** ClinStagEsophEUS
**Definition:** Was Endoscopic Ultrasound used for clinical staging?

**Intent/Clarification:** A procedure that combines endoscopy and ultrasound to obtain images and information about the digestive tract and the surrounding tissues and organs. An EUS, a small ultrasound transducer that is installed on the tip of the endoscope introduced into the esophagus permitting the transducer to get closer to the organs inside the body so the resultant ultrasound images provide detail of how deep into the esophageal wall a tumor extends as well as whether there are any enlarged or suspicious lymph nodes outside but next to the esophagus.

ParentLongName: Clinical Staging Performed For Esophageal Cancer

ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2100
**Long Name:** Clinical Staging Method - Esophageal - VATS for Staging
**Short Name:** ClinStagEsophVATS
**Definition:** Was a Video Assisted Thoracoscopic procedure used for clinical staging?

**Intent/Clarification:** Video-assisted thoracoscopic surgery (VATS) is a minimally invasive surgical technique used to diagnose, stage and treat problems in the chest. During this surgery, a tiny camera (thoracoscope) and surgical instruments are inserted in the chest through small incisions. The thoracoscope transmits images of the inside of the chest onto a video monitor, guiding the surgeon performing the procedure. Video-assisted thoracoscopic surgery (VATS) can be used for many purposes, ranging from a biopsy to removal of tumors.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2110
**Long Name:** Clinical Staging Method - Esophageal - Laparoscopy for Staging
**Short Name**: ClinStagEsophLap
**Definition:** Was a laparoscopy used for clinical staging?

**Intent/Clarification**: Laparoscopy is a minimally invasive procedure used as a diagnostic tool and surgical procedure that is performed to examine the abdominal and pelvic organs. Tissue samples and peritoneal washings can be collected using laparoscopy and malignancies treated when it is combined with other therapies.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"

ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2120
**Long Name:** Clinical Staging Method - Esophageal - Endoscopic Mucosal Resection
**Short Name**: ClinStagEsophEMR
**Definition:** Was an endoscopic mucosal resection used for clinical staging?

**Intent/Clarification:** An Endoscopy with Biopsy is not the same as an Endoscopic Mucosal Resection. An Endoscopic Mucosal Resection is a diagnostic procedure during which fluid is injected into the esophageal wall to raise the mucosa up and away from the esophageal muscle. This "island" of raised mucosa can then be removed much like a polyp providing a larger and thicker sample to judge the depth of penetration of cancer into the esophageal wall. This is a potentially therapeutic procedure. An EMR is commonly done for very small esophageal cancers located on/in the mucosa (inner lining of the esophagus). If the cancer is completely removed and other criteria on the pathology report are met, the procedure is therapeutic.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2130
**Long Name:** Clinical Staging Method - Esophageal – Other
**Short Name**: ClinStagEsophOth
**Definition:** Indicate if method/technology other than those listed was used for clinical staging.

**Intent/Clarification:** Indicate if any other method/technology was used for clinical staging.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|

1 Yes

2 No

---

**SeqNo:** 2150
**Long Name**: Esophageal Cancer Tumor – T
**Short Name**: ClinStageEsophT
**Definition:** Record T status based on EUS report. If EUS not done, estimate T based on CT or PET/CT. No esophageal thickening = T1. If esophageal thickening is present, use T2. If stricture is noted on endoscopy or barium swallow or the patient is experiencing dysphagia, code as T3. If CT or PET/CT indicated invasion of adjacent structures, use T4.

**Intent/Clarification:**
**Example:** How is a pre-operative esophageal cancer staging done? The patient received Chemo/radiation therapy prior to surgery. What PET/CT results are to be used? Time of initial diagnosis (presence of tumor and PET positive nodes) or most recent PET/CT prior to surgery after chemo/radiation therapy? (No tumor or PET avid nodes remain) **Use the PET/CT results prior to induction chemoradiation therapy**

Always consult your surgeon first if staging is not documented or unclear.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | T0 | No evidence of primary tumor |
| 2 | Tis | High grade dysplasia |
| 9 | T1 | Tumor invades lamina propria, mucosa or submucosa |
| 5 | T2 | Tumor invades muscularis propria |
| 6 | T3 | Tumor invades adventitia |
| 10 | T4 | Tumor invades adjacent structures |

---

**SeqNo:** 2160
**Long Name:** Clinical Diagnosis of Nodal Involvement
**Short Name**: ClinStageEsophNode
**Definition:** Indicate whether there was a clinical diagnosis of nodal involvement.

**Intent/Clarification**: Indicate nodal status. Nodes > 1cm on CT or PET/CT or EUS are considered positive. All positive PET nodes are considered positive. Count biopsy positive nodes. Include any comments about involved or suspicious nodes.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes (N1, N2, or N3) |
| 2 | No |

---

**SeqNo:** 2170
**Long Name:** Esophageal Cancer Metastasis – M
**Short Name:** ClinStageEsophM
**Definition:** Indicate the appropriate descriptor for the esophageal cancer **distant** metastasis. Regional nodes, even if worrisome for malignancy, are not considered M1 disease. Clinical staging is based on the PRE-TREATMENT ESTIMATED staging workup which may include CT scan, PET scan, endoscopic ultrasound, etc.

**Intent/Clarification**: Metastasis or metastatic disease (sometimes abbreviated mets), is the spread of cancer from one organ to another non-adjacent organ or tissue. A (+) cervical node is M1 disease if the primary tumor is in the lower thoracic esophagus or at GE junction. Similarly a (+) left gastric node would be M1 disease is the primary cancer involved only the cervical or upper thoracic esophagus.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code: | Value: | Definition: |
|---|---|---|
| 1 | M0 | No Distant Metastasis |
| 2 | M1 | Distant Metastasis |

---

**SeqNo:** 2180
**Long Name**: Esophageal Tumor Location - Cervical Esophagus (15 - < 20 cm)
**Short Name**: TumorEsopCervical
**Definition:** Indicate whether tumor existed in the cervical esophagus (from 15 cm up to, but not including 20 cm) per the diagnostic reports.

**Intent/Clarification**: If tumor is in more than one location, select all that apply

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"

ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2190
**Long Name:** Esophageal Tumor Location - Upper Thoracic (20 - < 25 cm)
**Short Name**: TumorEsopUpThorac
**Definition:** Indicate whether tumor existed in the upper thoracic (from 20 cm up to, but not including 25 cm) per the diagnostic reports.

**Intent/Clarification**: If tumor is in more than one location, select all that apply

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2019: If esophageal CA was diagnosed by GI biopsy and our surgeon puts in central lines/feeding tubes, is the case abstracted since the diagnosis was already made and at this point, there was not direct surgery on the tumor. **No, this case would not be abstracted**.

---

**SeqNo:** 2200
**Long Name:** Esophageal Tumor Location - Middle Thoracic (25 - < 30 cm)
**Short Name**: TumorEsopMidThorac
**Definition:** Indicate whether tumor existed in the middle thoracic (from 25 cm up to, but not including 30 cm) per the diagnostic reports.

**Intent/Clarification:** If tumor is in more than one location, select all that apply

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

---

**SeqNo**: 2210
**Long Name:** Esophageal Tumor Location - Lower Thoracic, including EG Junction (30-42 cm)
**Short Name**: TumorEsopLowThorac
**Definition**: Indicate whether tumor existed in the lower thoracic, including EG Junction (from 30 to 42 cm) per the diagnostic reports.

**Intent/Clarification**: If tumor is in more than one location, select all that apply

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

---

**SeqNo:** 2220
**Long Name:** Clinical Staging - Esophagus – Result
**Short Name**: ClinStageEsophResult
**Definition:** Indicate the results of the final pathologic diagnosis for esophageal cancer.

**Intent/Clarification**: Indicate if esophageal cancer was found.

ParentLongName: Clinical Staging Performed For Esophageal Cancer
ParentShortName: ClinStagDoneEsoph
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code | Value |
|---|---|
| 1 | No cancer found or benign tumor |
| 2 | Esophageal cancer present |

December 2018: A patient has a diagnosis of esophageal cancer. Has chemo and radiation treatment prior to surgery. He has Ivor Lewis-Partial Esphagectomy done. Final pathology report comes back as "no primary tumor found". My surgeon told me to abstract TONOMO. Do I abstract esophageal cancer found and then TONOMO and leave the histopathologic type and grade blank? **Yes, abstract as esophageal cancer found and then T0N0M0 as the cancer is gone. You can use the pre-surgical path report for the histology and grade.**

---

SeqNo: 2230
**Long Name**: Pathologic Staging - Esophageal Cancer – T
**Short Name**: PathStageEsophT
**Definition:** Indicate the appropriate descriptor for the esophageal cancer primary tumor based on final pathology report after resection.

**Intent/Clarification**:

ParentLongName: Clinical Staging - Esophagus - Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 9 | TX | Tumor cannot be assessed |
| 1 | T0 | No evidence of primary tumor |
| 2 | Tis | High Grade Dysplasia, defined as malignant cells confined to the epithelium by the basement membrane |
| 3 | T1a | Tumor invades lamina propria or muscularis mucosa |
| 4 | T1b | Tumor invades submucosa |
| 5 | T2 | Tumor invades muscularis propria |
| 6 | T3 | Tumor invades adventitia |
| 7 | T4a | Tumor invades pleura, pericardium or diaphragm |
| 8 | T4b | Tumor invades adjacent structures such as aorta, vertebral body, or airway |

October 2018: If the patient had induction therapy and had a complete response check “Tumor Present”.
October 2018: If the tumor was resected at a separate EMR procedure use the T stage from the EMR.

---

**SeqNo:** 2240
**Long Name:** Pathologic Staging - Esophageal Cancer – N
**Short Name:** PathStageEsophN
**Definition:** Indicate the appropriate descriptor for the esophageal cancer regional lymph nodes based on final pathology report.

**Intent/Clarification:**

ParentLongName: Clinical Staging - Esophagus - Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 7 | NX | Regional lymph nodes cannot be assessed |
| 1 | N0 | No regional lymph node metastasis |
| 8 | N1 | Metastasis in 1-2 regional nodes |
| 9 | N2 | Metastasis in 3-6 regional lymph nodes |
| 10 | N3 | Metastasis in 7 or more regional lymph nodes |

August 2019: A question came up at the data manager meeting regarding how to code pN (#2240 – PathStageEsophN) in a particular scenario. We thought we knew the correct answer, but had two surgeons in attendance at our meeting, one agreed with us and the other disagreed. So, I thought I'd run it by you. The path report from an esophagectomy case:

Comment:
The residual carcinoma is limited to scattered single cells and one small cluster of nests. The adventitia was searched for lymph nodes and none were found grossly. Several sections of this tissue were submitted for microscopic examination, and no lymph nodes were found in these sections.

Regional lymph nodes:
Number of positive lymph nodes / total lymph nodes examined: 0 / 0
Number of lymph nodes with scar but without carcinoma cells post treatment: 0

We (the data managers) thought this should be coded as NX since there were no nodes to assess. One surgeon agreed with us, but another surgeon thought it should be coded as N0. We'd like to get the final verdict from STS so we can share with our state surgeons. **This would be NX since there are no nodes.**

---

**SeqNo:** 2250
**Long Name**: Pathologic Staging - Esophageal Cancer – M
**Short Name**: PathStageEsophM
**Definition**: Indicate the appropriate descriptor for the esophageal cancer distant metastases based on final pathology report.

**Intent/Clarification:**

ParentLongName: Clinical Staging - Esophagus - Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | M0 | No distant metastasis |
| 2 | M1 | Distant metastasis |

December 2019: For Lung mets 1960 PathStageLungM the manual states: Document M0 unless there is documentation of mets somewhere else. Generally, if mets is not documented assume MO – no mets. Can we also assume this for esophageal cancer? **If nothing is documented it should be MO.**

---

**SeqNo:** 2260
**Long Name**: Pathologic Staging - Esophageal Cancer – H
**Short Name:** PathStageEsophH
**Definition:** Indicate the appropriate descriptor for the esophageal cancer histopathologic type based on final pathology report.

**Intent/Clarification**: Tumor histology is determined by pathologic evaluation of the specimen. If final pathology report lists T0 and no histologic grade, select histologic grade from pre-surgical biopsy.

ParentLongName: Clinical Staging - Esophagus- Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | H1 | Squamous Carcinoma |
| 2 | H2 | Adenocarcinoma |
| 3 | Other | Other |

---

**SeqNo:** 2270
**Long Name:** Pathologic Staging - Esophageal Cancer – G
**Short Name:** PathStageEsophG

**Definition:** Indicate the appropriate descriptor for the esophageal cancer histologic grade based on final pathology report. If a range of differentiation is reported, choose the worst differentiation.

**Intent/Clarification**:

ParentLongName: Clinical Staging - Esophagus - Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | GX | Grade cannot be assessed |
| 2 | G1 | Well differentiated |
| 3 | G2 | Moderately differentiated |
| 4 | G3 | Poorly differentiated, undifferentiated |

October 2018: Can grade be taken from initial biopsy similar to histology? **Take Grading from the final Pathology Report unless the patient had induction therapy or other therapy then the initial biopsy report can be used.**

---

**SeqNo:** 2280
**Long Name**: Esophageal Cancer - Number of Nodes
**Short Name**: EsophCANodes
**Definition:** Indicate the total number of nodes sampled/harvested.

**Intent/Clarification**: Total number of lymph nodes will be listed on final pathology report. Use the final pathology report from the day of surgery for the number of nodes.
Limits are 0-80; usual range is 5-15

ParentLongName: Clinical Staging - Esophagus - Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

---

**SeqNo:** 2290
**Long Name:** Esophageal Cancer - Pathology Margins
**Short Name**: EsophCAPathMarg
**Definition:** Indicate whether pathology report indicated positive surgical margins.

**Intent/Clarification**: Margins, also known as "margins of resection," refer to the distance between a tumor and the edge of the surrounding tissue that's removed along with it. “Positive margins” indicate cancer cells extend to the edge of resected tissue.

ParentLongName: Clinical Staging - Esophagus - Result
ParentShortName: ClinStageEsophResult
ParentValue: = "Esophageal cancer present"
ParentHarvestCodes: 2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

## Thymus/Mediastinal Mass Resection

**Instructions - For Thymus/Mediastinal Mass cases**

- Collect detailed info on thymectomies for myasthenia including open, cervical or VATS route
- Collect all thymectomies for myasthenia regardless of whether they have thymoma
- Collect detailed info on thymectomies for thymoma including open or VATS
- Include robotics in VATS until there is a specific CPT code
- Use the diagnosis of ‘Neoplasm of Uncertain Behavior’ to capture diagnoses not specifically called out in other diagnoses

---

**SeqNo:** 2300
**Long Name**: Symptomatic myasthenia
**Short Name**: MyastheniaSympt
**Definition**: Indicate whether the patient has symptomatic Myasthenia Gravis

**Intent/Clarification**: Common symptoms are drooping of one of both eyes (ptosis), double vision (diplopia), altered speaking, difficulty swallowing and/or chewing and muscle weakness.

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

January 2019: The STS November and December training manual instructions for Thymus/Mediastinal Mass Resection do not match and if some changes were made with the latest training manual why did it not reflect

in the new training manual and striked through as other changes made in the training manual? The change that did not appear on the December training manual is "Collect other resections (not biopsies) by approach (open vs thoracoscopy) and to some extent location and pathology based on available Dx codes (germ cell, teratoma or other benign, metastasis)". **Only MG and thymomas are captured in the database. This instruction was removed as it is not relevant.**

---

**SeqNo:** 2310
**Long Name:** Chronic Medical Treatment – Mestinon
**Short Name**: TxMestinon
**Definition:** Indicate whether patient uses Mestinon for the treatment of myasthenia gravis.

**Intent/Clarification**:

ParentLongName: Symptomatic myasthenia
ParentShortName: MyastheniaSympt
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2320
**Long Name:** Chronic Medical Treatment – Steroids
**Short Name:** TxSteroids
**Definition:** Indicate whether patient uses steroids for the treatment of myasthenia gravis.

**Intent/Clarification:**

ParentLongName: Symptomatic myasthenia
ParentShortName: MyastheniaSympt
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2330
**Long Name:** Chronic Medical Treatment - Other Immunosuppressive Therapy
**Short Name:** TxImmunoSuppress
**Definition:** Indicate whether patient uses another immunosuppressive therapy for the treatment of myasthenia gravis.

**Intent/Clarification**: Examples are azathioprine (Imuran), mycophenolate mofetil (CellCept), cyclosporine (Sandimmune, Neoral), methotrexate (Trexall) or tacrolimus (Prograf) and Rituxan.

ParentLongName: Symptomatic myasthenia
ParentShortName: MyastheniaSympt
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2340
**Long Name:** Pre-operative management – IVIG
**Short Name:** IVIG
**Definition:** Indicate whether the patient has had IVIG pre-operatively.

**Intent/Clarification**: IVIg= intravenous immunoglobulin

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2350
**Long Name**: Pre-operative management – Plasmapheresis
**Short Name**: Plasmaphereis
**Definition**: Indicate whether the patient has had plasmapheresis pre-operatively.

**Intent/Clarification**:

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2360
**Long Name**: Thymus / Mediastinal Mass Size Known
**Short Name**: MassSizeKnown
**Definition:** Indicate whether the size of the thymus / mediastinal mass is known.

**Intent/Clarification**:

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2370
**Long Name:** Size of Mass In mm
**Short Name**: MassSize
**Definition**: Indicate the largest diameter in mm derived from PreOp axial, coronal or sagittal imagining.

**Intent/Clarification**: Tumor size can be found on contrast-enhanced chest CT or MRI.
If the tumor size is greater than 99mm; enter 99mm.

ParentLongName: Thymus / Mediastinal Mass Size Known
ParentShortName: MassSizeKnown
ParentValue: = ” Yes”
ParentHarvestCodes: 1

---

**SeqNo:** 2380

**Long Name**: Thymus / Mediastinal Mass - Initial Surgical Approach
**Short Name:** ThyInitSurgAp
**Definition**: Indicate the initial surgical approach used by the surgeon.

**Intent/Clarification**:

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Full Sternotomy |
| 2 | Clamshell or Hemiclamshell |
| 3 | Transcervical |
| 4 | Partial Sternotomy |
| 5 | Robotic |
| 6 | VATS |

September 2018: When doing a thymectomy, my physician often uses a thoracotomy approach. I do not see this as a choice in the "initial surgical approach question. How would I answer this? **Unfortunately there should have been an option of 'thoracotomy'. Until that is possible, leave the field blank.**

---

**SeqNo**: 2390
**Long Name:** Thymus / Mediastinal Mass - Robotic / VATS Location
**Short Name**: ThyRobVATSLoc
**Definition**: Indicate the location of the robotic or VATS procedure.

**Intent/Clarification**:

ParentLongName: Thymus / Mediastinal Mass - Initial Surgical Approach
ParentShortName: ThyInitSurgAp
ParentValue: = "Robotic" or "VATS"
ParentHarvestCodes: 5|6

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Right |
| 2 | Left |
| 3 | Bilateral |

**SeqNo:** 2400
**Long Name**: Thymus / Mediastinal Mass - Conversion To Open Approach
**Short Name**: ThyConvToOpen
**Definition**: Indicate if the approach was converted to an open approach during the procedure.

**Intent/Clarification:** The intent is to capture, if based on findings in the OR, the approach was converted to open.

ParentLongName: Thymus / Mediastinal Mass - Initial Surgical Approach
ParentShortName: ThyInitSurgAp
ParentValue: = "Transcervical", "Partial Sternotomy", "Robotic" or "VATS"
ParentHarvestCodes: 3|4|5|6

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes, planned (went into OR with intent to convert to Open approach) |
| 2 | Yes, unplanned (converted to open approach based on findings) |
| 3 | No |

---

**SeqNo:** 2410
**Long Name**: Thymus / Mediastinal Mass - Conversion Approach
**Short Name:** ThyConvAp
**Definition:** Indicate the final surgical approach for the thymus / mediastinal mass resection.

**Intent/Clarification**: Sternotomy can be full or partial

ParentLongName: Thymus / Mediastinal Mass - Conversion To Open Approach
ParentShortName: ThyConvToOpen
ParentValue: = "Yes, planned" or "Yes, unplanned"
ParentHarvestCodes: 1|2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Sternotomy (full or partial) |
| 2 | Clamshell |
| 3 | Thoracotomy |

---

**SeqNo:** 2420
**Long Name**: Intentional resection of functioning phrenic nerve
**Short Name:** PhrenicNerveResect
**Definition:** Indicate if functioning phrenic nerve was resected intentionally by the surgeon during the procedure.

**Intent/Clarification:** Documentation of this may be found in the consult note, the operative note, or on the consent.

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2430
**Long Name:** Pathologic Staging (from pathology report)
**Short Name**: PathRptStage
**Definition:** Indicate the pathological stage as reported on the final Pathology report.

**Intent/Clarification**: Leave the field blank if the patient does not have thymoma

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code | Value | Definition |
|---|---|---|
| 1 | Stage I | Grossly and microscopically encapsulated. Also called a noninvasive thymoma. That is, it has not spread beyond the thymus. |
| 2 | Stage II | The thymoma invades beyond the capsule (outer boundary of the thymus) and into the nearby fatty tissue or to the mediastinal pleura |
| 3 | Stage IIa | Microscopic transcapsular invasion |
| 4 | Stage IIb | Macroscopic capsular invasion |
| 5 | Stage III | Macroscopic invasion of neighboring organs. The thymoma extends into the neighboring tissues or organs of the lower neck or upper chest area, including the pericardium (covering of the heart), the lungs, or the main blood vessels leading into or exiting from the heart. |
| 6 | Stage IVa | Pleural or pericardial dissemination. The thymoma has spread widely throughout the pleura and/or pericardium. |

| | | |
|---|---|---|
| 7 | Stage IVb | Hematogenous or lymphatic dissemination. The thymoma has spread to distant organs. |

September 2018: How do we answer the pathological staging when the pathology report documents: "thymic gland with lymphoid hyperplasia. Neoplastic process not identified. No staging was done. I chose Stage 1. Is this correct? **No. Leave it blank. This is not collected as it is not a thymoma.**
September 2018: If a patient has "no thymoma" there is no option to indicate that for this question- so will just come as a missing variable- just wanted to bring that to your attention. **Leave the field blank if no thymoma present.**
September 2018: For the pathological staging for Thymomas, my pathology report has the following staging reported: Modified Masaoka Stage: IIa, Moran Stage:I, TNM stage I. Please clarify that the Masaoka staging is what is required for this seq number. For Seq 2440 WHO classification was (type A, B1) per report, pt had Bernatz mixed spindle cell and lymphocyte rich; Muller-Hermelink mixed cortical and medullary; Suster-Moran-Thymoma, mixed histology. Should the highest classification be captured since both classifications were reported? **The pathologic staging is according to the Masaoka staging system so he/she would code IIa.**
October 2018: Pt had a Robotic Thymectomy 32673 for Myasthenia Gravis 358.0. The path returned thymic hyperplasia. How do I answer the Path staging and WHO classification Seq#s 2430 & 2440? I left Seq# 2430 blank and answered Seq# 2440 as option #7 Not Thymoma. Based on the examples under Seq#2430 in the training manual, it says not to collect the case if it is not a thymoma, but then why is there option #7 on Seq# 2440? Should this case be collected and how do I answer Seq#s 2430 & 2440? **Complete what is appropriate and leave blank if it not appropriate. If procedure is done for MG and ends up not a thymoma it is still collected.**
February 2019: Are you aware that the training manual and the FAQ link give contradicting answers to this sequence number (2430)? One says don't collect if NOT thymoma and the other says leave this field blank if NOT thymoma? AND- if it is left blank...it shows as MISSING on the DQR. Further, how do we complete sequence 2450 "completeness of resection" if thymectomy is for Myasthenia and not for thymoma? Can you clarify**? If it is not a thymoma it does not apply so you can leave it blank. 2450 does not apply if it is for MG, so you would leave it blank. It will show up as missing on DQR but just ignore.**
February 2020**:** Patient had a mediastinal mass resection and the path report came back as thymic carcinoma. The surgeons were unable to remove entire tumor due to it being on the aorta and origin of the innominate so they had to leave some tumor behind. The carcinoma extends into posterior and right lateral margin. The pathologist did not Stage the tumor (2439). Do I leave this blank? **If no staging on path report, then leave blank.**
February 2020: I don't see that staging was performed for my thymoma case where the pt died intra-op, only an autopsy report. I don't see this info to enter. Can I get my surgeon to review the autopsy report to determine the stage? **Yes, ask surgeon to provide you a stage.**
April 2020: I wanted to clarify based on this question in the manual "September 2018: How do we answer the pathological staging when the pathology report documents: "thymic gland with lymphoid hyperplasia. Neoplastic process not identified. No staging was done. I chose Stage 1. Is this correct? No. Leave it blank. This is not collected as it is not a thymoma." If a thymectomy was completed for auto-immune encephalitis I leave this sequence Blank & it is not analyzed sine it is not a thymoma? Path: Thymus, thymectomy: Benign thymus parenchyma; negative for neoplasm. **Answer NO to seq# 1600 and do not fill out this section**

---

**SeqNo:** 2440

**Long Nam**e: WHO classification
**Short Name**: ThymomaType
**Definition:** Indicate the WHO classification as reported on the final Pathology Report.

**Intent/Clarification**:

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code | Value |
|---|---|
| 1 | Type A |
| 2 | Type AB |
| 3 | Type B1 |
| 4 | Type B2 |
| 5 | Type B3 |
| 6 | Thymic Carcinoma or Type C |
| 7 | Not Thymoma |

September 2018: For the pathological staging for Thymomas, my pathology report has the following staging reported: Modified Masaoka Stage: IIa, Moran Stage:I, TNM stage I. Please clarify that the Masaoka staging is what is required for this seq number. For Seq 2440 WHO classification was (type A, B1) per report, pt had Bernatz mixed spindle cell and lymphocyte rich; Muller-Hermelink mixed cortical and medullary; Suster-Moran-Thymoma, mixed histology. Should the highest classification be captured since both classifications were reported? **The pathologic staging is according to the Masaoka staging system so he/she would code IIa.**
June 2019: The following information was documented in the final pathology report. How should Sequence #2440 be coded? The tumor is lobulated with cystic changes. The tumor cells are in solid sheets, morphologically overlap between type A and type B3 thymoma, but favoring type A. Type B2 areas are also present. Immunohistochemically, TdT is largely negative in the stained section common in both type A and B3), variable for CD20 and Ki-67 (highest focus =10%). The tumor hence is best classified as type AB (type B2 for the B component) with co-existing type B3. **Code this AB—it is the closest classification.**
September 2019: Pathology came back metaplastic thymoma, Pathological Stage Classification pT1a pNX. Very rare. Not one of the choices. What should I code? **Get more information – review path with surgeon and ask if there is any option for classification that matches, if not leave blank.**

---

**SeqNo:** 2450
**Long Name**: Completeness of resection (from operative note or pathology report)
**Short Name**: ResectCompleteness

**Definition**: Indicate the completeness of the resection as reported on the Operative Note or final Pathology Report.

**Intent/Clarification**: If not listed or unclear, ask your surgeon.

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code: | Value: | Definition: |
|---|---|---|
| 1 | R0 | Complete resection with negative margins. |
| 2 | R1 | Microscopically positive margin. |
| 3 | R2 | Grossly positive margin, visible tumor left behind. |

---

**SeqNo**: 2460
**Long Name**: Patient Alive 30 Days Post Procedure
**Short Name**: PtAlive30Day
**Definition:** Indicate if the patient is alive at 30 days post-operative.

**Intent/Clarification**: Does not need to be exactly one month; most recent visit closest to one month (but at least 30 days) is fine.

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2020: For my thymoma case where the pt died intraoperatively before the planned pneumonectomy, is it best to leave this field blank since the operation was unsuccessful or do I use "R2"? Yes, leave blank.

---

**SeqNo:** 2470
**Long Name**: Myasthenic crisis requiring return to ICU or intervention (intubation, plasmapheresis) - Post-Operative event (30 day)
**Short Name**: MYAL

**Definition**: Indicate whether the patient experience myasthenic crisis after surgery.

**Intent/Clarification**: Myasthenia crisis requiring return to ICU or intervention (intubation, plasmapheresis) within 30 days of surgery

ParentLongName: Patient Alive 30 Days Post Procedure
ParentShortName: PtAlive30Day
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2480
**Long Name:** Unintentional phrenic nerve palsy - Post-Operative event (30 day)
**Short Name**: PhrenicNervePalsy
**Definition:** Indicate if the patient experienced unintentional phrenic nerve palsy in the post-operative period. Unintentional means phrenic nerve palsy without having undergone intentional resection of the phrenic nerve.

**Intent/Clarification**:

ParentLongName: Patient Alive 30 Days Post Procedure
ParentShortName: PtAlive30Day
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2490
**Long Name**: Patient Alive 90 Days Post Procedure
**Short Name**: PtAlive90Day
**Definition**: Indicate if the patient is alive at 90 days post-operative.

**Intent/Clarification:** Does not need to be exactly 90 days; most recent visit closest to 90 days (but at least 90 days).

ParentLongName: Patient Alive 30 Days Post Procedure
ParentShortName: PtAlive30Day
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2500
**Long Name** Adjuvant thoracic radiation - Post-Operative event (90 day)
**Short Name:** ThoracicRadiation
**Definition:** Indicate whether the patient initiated adjuvant thoracic radiation within 90 days post operatively.

**Intent/Clarification**:

ParentLongName: Patient Alive 90 Days Post Procedure
ParentShortName: PtAlive90Day
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2510
**Long Name**: Persistent unintentional phrenic nerve palsy - Post- Operative event (90 day)
**Short Name**: PhrenNrvPalsyPersis
**Definition:** Indicate if the patient has persistent diaphragm dysfunction due to unintentional phrenic nerve palsy 90 days following surgery.

**Intent/Clarification**: Unintentional means phrenic nerve palsy without having undergone intentional resection of the phrenic nerve.

ParentLongName: Patient Alive 90 Days Post Procedure
ParentShortName: PtAlive90Day
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

## Tracheal Resection

**SeqNo:** 2520
**Long Name:** Current Airway - Pre-Operative
**Short Name**: AirwayCurr
**Definitio**n: Indicate the patient's airway status prior to surgery.

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Native |
| 2 | Oral ETT |
| 3 | Trach |
| 4 | T-Tube |

---

**SeqNo:** 2530
**Long Name**: Prior tracheostomy - Pre-Operative
**Short Name:** TracheostomyPrior
**Definition**: Indicate if the patient has had a prior tracheostomy at any point in their life.

**Intent/Clarification:** At any time in the past including open or percutaneous tracheostomy or cricothyroidostomy

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2540
**Long Name:** Prior intubation - Pre-Operative
**Short Name**: IntubatePrior
**Definition**: Indicate if the patient has had a prior intubation at any point in their life.

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2550
**Long Name**: Prior Tracheal Resection - Pre-Operative
**Short Name:** TrachealResectPrior
**Definition:** Indicate if the patient has ever had a prior tracheal resection.

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2560
**Long Name:** Recent Bronchoscopic Intervention (within 6 weeks)
**Short Name**: BronchInt6Wks
**Definition:** Indicate if the patient has had any bronchoscopic interventions within the last 6 weeks. This includes, for example, core out, dilation, ablation, and/or stent.

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes and Value Definitions:

| Code: | Value: |
|---|---|

1 Yes

2 No

---

**SeqNo:** 2570
**Long Name:** Recurrent Nerves Intact
**Short Name**: RecurrNervesIntact
**Definition**: Indicate if the patient has a known recurrent nerve palsy prior to surgery.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Unknown |

---

**SeqNo:** 2580
**Long Name:** Recurrent Nerves Not Intact
**Short Name**: RecurrNervNotIntact
**Definition:** Indicate which recurrent nerve is not intact.

**Intent/Clarification:**

ParentLongName: Recurrent Nerves Intact
ParentShortName: RecurrNervesIntact
ParentValue: = "No"
ParentHarvestCodes: 2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Right |
| 2 | Left |
| 3 | Both |

---

**SeqNo**: 2590
**Long Name**: Airway Management During Resection - Cross table ventilation
**Short Name**: CrossTableVent
**Definition:** Indicate whether cross table ventilation was used during the resection.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2600
**Long Name**: Airway Management During Resection - VA ECMO
**Short Name**: VaECMO
**Definition**: Indicate whether VA ECMO was used during the resection.

**Intent/Clarification**: VA ECMO stands for Venoarterial Extracorporeal Membrane Oxygenation. This process takes deoxygenated blood from a central vein or the right atrium, pumps it past the oxygenator, and then returns the oxygenated blood, under pressure, to the arterial side of the circulation (typically to the aorta)

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2610
**Long Name:** Airway Management During Resection - Jet Ventilation
**Short Name:** JetVent
**Definition**: Indicate whether jet ventilation was used during the resection.

**Intent/Clarification:** Jet ventilation refers to delivery of oxygen via high pressure jet ventilator

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2620
**Long Name**: Airway Management during Resection - VV ECMO
**Short Name**: VvECMO
**Definition:** Indicate whether VV ECMO was used during the resection.

**Intent/Clarification**: VV ECMO stands for Venovenus Extracorporeal Membrane Oxygenation. This process takes blood from a large vein, pumps it past the oxygenator, and returns oxygenated blood back to a large vein

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2630
**Long Name**: Airway Management during Resection - Cardiopulmonary bypass
**Short Name**: CardoPulmBypass
**Definition:** Indicate whether cardiopulmonary bypass was used during the resection.

**Intent/Clarification**: Cardiopulmonary bypass is a technique that temporarily takes over the function of the heart and lungs during surgery, maintaining the circulation of blood and the oxygen content of the patient's body.

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2640
**Long Name:** Tracheal Resection Incision – Cervical
**Short Name**: TrachIncisCerv
**Definition:** Indicate whether a cervical approach was used during this procedure.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2650
**Long Name:** Tracheal Resection Incision - Partial Sternotomy
**Short Name**: TrachIncisPartStern
**Definition:** Indicate whether a partial sternotomy approach was used during this procedure.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 2660
**Long Name**: Tracheal Resection Incision - Full Sternotomy
**Short Name**: TrachIncisFullStern
**Definition**: Indicate whether a full sternotomy approach was used during this procedure.

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2670
**Long Name**: Tracheal Resection Incision - Right Thoracotomy
**Short Name**: TrachIncisRight
**Definition:** Indicate whether a right thoracotomy approach was used during this procedure.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData

ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2680
**Long Name:** Tracheal Resection Incision – Clamshell
**Short Name**: TrachIncisClam
**Definition**: Indicate whether a clamshell approach was used during this procedure.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2690
**Long Name**: Length of tracheal resection in cm (Surgical or pathological measurement acceptable)
**Short Name:** TrachealResectLen
**Definition:** Indicate the length of the tracheal resection in ~~mm~~ cm as reported on the pathology or surgical report.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

June 2019: Field definition indicated that measurement should be in **mm** while field Long Name indicated **cm**. Data should be captured as cm. This was a typo.

---

**SeqNo:** 2700
**Long Name:** Cricoid resection required
**Short Name:** CricoidResect
**Definition:** Indicate whether any portion of the cricoid cartilage was resected.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|

1 Yes

2 No

---

**SeqNo:** 2710
**Long Name:** Carinal resection required
**Short Name**: CarinalResect
**Definition**: Indicate whether a carinal resection was performed.

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2720
**Long Name**: Release Maneuvers Performed
**Short Name**: ReleaseManeuver
**Definition**: Indicate if release maneuvers were performed.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2730
**Long Name**: Release Maneuver – Type
**Short Name**: ReleaseManeuverType

**Definition:** Indicate what type of release maneuver was performed.

**Intent/Clarification:**

ParentLongName: Release Maneuvers Performed
ParentShortName: ReleaseManeuver
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Suprahyoid |
| 2 | Suprathyroid |
| 3 | Hilar |

---

**SeqNo:** 2740
**Long Name:** Anastomotic dehiscence requiring drainage, revision, stent, tracheostomy, T-Tube
**Short Name**: AnastomoticDehiscen
**Definition**: Indicate if the patient experienced anastomotic dehiscence requiring drainage, revision, stent, tracheostomy or t-tube in the post-operative period.

**Intent/Clarification**: within 30 days of surgery or during same admission of not discharged within 30 days

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2750
**Long Name**: Anastomotic stricture requiring intervention
**Short Name**: AnastomoticStricture
**Definition:** Indicate if the patient experienced an anastomotic stricture requiring any intervention in the post-operative period.

**Intent/Clarification**: within 30 days of surgery or during same admission of not discharged within 30 days

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2760
**Long Name**: Airway obstruction requiring intervention (e.g., unscheduled bronchoscopy)
**Short Name**: AirwayObstruct
**Definition:** Indicate if the patient experience an airway obstruction requiring any intervention during the post- operative period. For example, an unscheduled/unplanned bronchoscopy.

**Intent/Clarification**: within 30 days of surgery or during same admission of not discharged within 30 days

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 2770
**Long Name**: Recurrent nerve palsy
**Short Name:** NervePalsyRecurr
**Definition:** Indicate if the patient experienced any new recurrent nerve palsy in the post-operative period. If the patient did not experience recurrent nerve palsy, select 'neither'.

**Intent/Clarification**:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|

1 Right
2 Left
3 Both
4 Neither

---

**SeqNo:** 2780
**Long Name**: Patient left hospital with tracheal appliance
**Short Name:** TrachealAppliance
**Definition:** Indicate if the patient was discharged from the acute care hospital with a tracheal appliance in place; such as a tracheostomy, stent or T-tube.

I**ntent/Clarification:**

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes:

Harvest Codes:

Code: Value:

1 Yes
2 No
3 Patient died in hospital

---

**SeqNo:** 2790
**Long Name**: Patient Is Stent/Tube Free At 30 Days Postoperative
**Short Name**: StentTubeFree30days
**Definition:** Indicate if the patient is free of a stent or tracheal tube at 30 days post operatively.

**Intent/Clarification**: Does not need to be exactly one month; most recent visit closest to one month (but at least 30 days).

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes
2 No

| | |
|---|---|
| 3 | Patient died within 30 days of procedure |

---

**SeqNo**: 2800
**Long Name**: Patient Is Stent/Tube Free At 90 Days
**Short Name**: StentTubeFree90days
**Definition:** Indicate if the patient is free of a stent or tracheal tube at 90 days post operatively.

**Intent/Clarification**: Does not need to be exactly 90 days; most recent visit closest to 90 days is fine (but at least 90 days).

ParentLongName: Patient Is Stent/Tube Free At 30 Days Postoperative
ParentShortName: StentTubeFree30days
ParentValue: = "No"
ParentHarvestCodes: 2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Patient died within 90 days of procedure |

---

## Hiatal Hernia / GERD

**SeqNo:** 2810
**Long Name**: Symptoms of Hiatal Hernia or GERD – Heartburn
**Short Name:** Heartburn
**Definition:** Indicate whether the preoperative patient symptoms included heartburn.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |

2 No

---

**SeqNo:** 2820
**Long Name:** Symptoms of Hiatal Hernia or GERD – Cough
**Short Name**: Cough
**Definition:** Indicate whether the preoperative patient symptoms included coughing.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2830
**Long Name:** Symptoms of Hiatal Hernia or GERD – Regurgitation
**Short Name**: Regurgitate
**Definition:** Indicate whether the preoperative patient symptoms included regurgitation.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2840
**Long Name:** Symptoms of Hiatal Hernia or GERD – Hoarseness
**Short Name:** Hoarse
**Definition:** Indicate whether the preoperative patient symptoms included hoarseness.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2850
**Long Name**: Symptoms of Hiatal Hernia or GERD – Dysphagia
**Short Name**: Dysphagia
**Definition:** Indicate whether the preoperative patient symptoms included dysphagia.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2860
**Long Name**: Symptoms of Hiatal Hernia or GERD - Sore throat
**Short Name**: SoreThroat
**Definition**: Indicate whether the preoperative patient symptoms included sore throat.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2870
**Long Name**: Symptoms of Hiatal Hernia or GERD - Epigastric or chest pain
**Short Name:** Ephigastric
**Definition:** Indicate whether the preoperative patient symptoms included epigastric or chest pain.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"

ParentHarvestCode : 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

May 2019: Our patient has: Positive for fullness in chest, early satiety. We code Early satiety, but where do we capture fullness in the chest or do we just ignore that symptom? **'Fullness' is not captured. Ignore the symptom.**

---

**SeqNo:** 2880
**Long Name:** Symptoms of Hiatal Hernia or GERD – Asthma
**Short Name**: Asthma
**Definition:** Indicate whether the preoperative patient symptoms included asthma.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: What if the patient has had chronic asthma (perhaps since childhood) long before GERD was diagnosed; do we still select asthma as a symptom of GERD? **Yes, because the field is not defined as causative. The asthma may be associated to GERD through a mechanism that we don't understand yet.**

---

**SeqNo:** 2890
**Long Name**: Symptoms of Hiatal Hernia or GERD - Early satiety
**Short Name**: EarlySatiety
**Definition:** Indicate whether the preoperative patient symptoms included early satiety.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2900
**Long Name**: Symptoms of Hiatal Hernia or GERD - Reflux laryngitis
**Short Name:** RefluxLaryngitis
**Definition:** Indicate whether the preoperative patient symptoms included reflux laryngitis.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: P= "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2910
**Long Name:** Symptoms of Hiatal Hernia or GERD – Anemia
**Short Name**: Anemia
**Definition:** Indicate whether the preoperative patient symptoms included anemia.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2920
**Long Name**: Proton Pump Inhibitor - PPI Use
**Short Name**: PPIUse
**Definition:** Indicate if the patient used PPIs preoperatively - at the time of office or inpatient evaluation.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2930
**Long Name**: Proton Pump Inhibitor - PPI Relief
**Short Name:** PPIRelief

**Definition:** Indicate if the patient had relief of symptoms as a result of taking proton pump inhibitors (PPIs). Indicate 'no' if the patient had no relief, 'partial' if the patient had a decrease in symptoms (some relief), or 'complete' if the patient no longer had symptoms while taking PPIs.

**Intent/Clarification:**

ParentLongName: Proton Pump Inhibitor - PPI Use
ParentShortName: PPIUse
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Complete |
| 2 | Partial |
| 3 | No |

---

**SeqNo:** 2940
**Long Name**: EGD – Esophagitis
**Short Name**: Esophagitis
**Definition:** Indicate if the patient has esophagitis.

**Intent/Clarification**: Inflammation of the lining of the esophagus

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 2950
**Long Name:** Esophagitis - LA Grade
**Short Name:** LAGrade
**Definition:** Indicate the LA Grade.

**Intent/Clarification**:

ParentLongName: EGD - Esophagitis

ParentShortName: Esophagitis
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | A |
| 2 | B |
| 3 | C |
| 4 | D |

November 2018: If esophagitis is graded as A to B during an EGD, do I pick A or B for the final grade? **Indicate B as it is the higher grade.**

February 2020: If physician documented EGD results as "Esophagus: Moderate sized sliding type hiatal hernia with mild distal esophagitis noted.", how would we select the LA Grade for esophagitis? **LA Grade A**

---

**SeqNo:** 2960
**Long Name**: Barrett's metaplasia
**Short Name:** MetaplasiaBarrett
**Definition:** Indicate if the patient has Barrett's metaplasia, and whether low or high grade dysplasia is present.

**Intent/Clarification**: For the following situations select:

- if the patient has No Barrett's metaplasia – **select the "no" option**
- if the patient has Barrett's metaplasia without dysplasia – **select the "no" option**
- if the patient has Barrett's metaplasia indeterminate for dysplasia – **select the "no" option**

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: ParentHarvestCodes:
ParentValue: = "Yes"
HiatalHerniaData: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes, with low grade dysplasia |
| 2 | Yes, with high grade dysplasia |
| 3 | No |

---

**SeqNo**: 2970
**Long Name**: pH Testing
**Short Name**: pHTest

**Definition:** Indicate if the patient had pH testing done.

**Intent/Clarification**: An esophageal pH test measures how often stomach contents reflux into the lower esophagus and how much acid the reflux contains.

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2019: If a pH test was done 5 years prior to primary paraesophageal hernia repair, can those results be used to answer "yes" to sequence 2970? **The test from 5 years ago is too old. ~~Ideally~~, the test should be within 6 months.**

---

**SeqNo:** 2980
**Long Name**: DeMeester score
**Short Name**: DeMeesterScore
**Definition**: Indicate the patient's DeMeester score.

**Intent/Clarification**:

ParentLongName: pH Testing
ParentShortName: pHTest
ParentValue: = "Yes"
ParentHarvestCodes: 1

August 2019: Should the DeMeester score be abstracted as the final score or as the highest score throughout the whole testing period? For example, a patient has a final score of 19, but on Day 2 of testing, the score is 31. Would the score of 19 be abstracted or should the score of 31 be written down? **Use 31; the score when testing is completed.**

Update**: The score should be the FINAL score. In the FAQ above it would be 19, not 31.**

---

**SeqNo:** 2990
**Long Name:** Manometry performed
**Short Name**: Manometry
**Definition:** Indicate if Manometry was performed.

**Intent/Clarification**: Esophageal Manometry measures the function of the lower esophageal sphincter and the muscles of the esophagus indicating if food is able to move to the stomach normally.

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

April 2020: How long are manometry results good for? **6 months is reasonable**

---

**SeqNo:** 3000
**Long Name**: Manometry motility
**Short Name**: Motility
**Definition:** Indicate the patient's motility.

**Intent/Clarification**:

ParentLongName: Manometry performed
ParentShortName: Manometry
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Normal |
| 2 | Decreased |
| 3 | Aperistalsis |

February 2019: I have a patient that had a motility study and was diagnosed with a hypercontractile esophagus (jackhammer). Would that be considered a normal or decreased motility? **This is actually increased motility. You should leave seq. 3000 blank. Indicate yes to seq. 2990 but leave 3000 blank.**

---

**SeqNo**: 3010
**Long Name:** Lower esophageal segment (LES) resting pressure in mmHg
**Short Name**: RestPressure
**Definition:** Indicate the patient's LES resting pressure.

**Intent/Clarification:** Resting pressure will be found on manometry report.

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

September 2018: I had talked with my MD about LES resting pressure and he said to use Basal pressure, LES, respiratory mean. Is this correct? **Yes**
January 2019: When the LES is a negative number, how would we code this? My surgeon thought: It's unlikely that that is a true reliable number. Not sure if we can just omit this one? Another GTS DB User has seen this before and thought they were able to enter in a negative number in the previous database version.
Since this is not addressed in the Training Manual could you please advise? Should we leave this blank if it is negative? **Enter 0**

---

**SeqNo:** 3020
**Long Name:** Percent of failed swallows
**Short Name**: SwallowFail
**Definition:** Indicate the patient's percentage of failed swallows.

**Intent/Clarification:** Percentage of failed swallows will be found on manometry report.

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

---

**SeqNo**: 3030
**Long Name**: Imaging performed
**Short Name**: ImagePerform
**Definition:** Indicate if any imaging was performed.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo**: 3040
**Long Name**: Type of Imaging performed
**Short Name**: ImageType
**Definition**: Indicate the type of imaging that was performed.

**Intent/Clarification**: The intent is to capture any pre-operative work up that was performed to diagnose hiatal hernia.
Since only one imaging test is able to be selected, if more than one imaging study is done select options from left to right on the data collection form. For instance, if both a barium swallow and CT scan were done, indicate the Barium Swallow on the DCF. This will be corrected on the next version of the DCF.

ParentLongName: Imaging performed
ParentShortName: ImagePerform
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Barium swallow / upper GI series |
| 2 | CT Scan |
| 3 | CXR |

September 2018: For Hiatal Hernias, does imaging performed include an EGD for bariums swallow/ upper GI choice? **Imaging does NOT include EGD. EGD will be added to the next version.**

---

**SeqNo:** 3050
**Long Name**: Hiatal hernia size in cm
**Short Name**: HerniaSize
**Definition**: Indicate the size of the hiatal hernia in cm.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

March 2019: I have shared with our surgeons the percentage of missing values for our HH size. My surgeon said, "he could show me how to get it from all his old reports if she substracts the final crural pinch number and preop Z line number will give her that “size number” they want." Is this acceptable to do, so I can back populate this field? Or do you have to have the actual value discoverable in the medical record? I want to get the values for research. Are these going to be audited procedures for the STS? I was able to find some HH sizes on the manometry reports but they are low values. **The size can be found in the EGD report or in the**

**manometry. If the surgeon wants to calculate the size he/she can do that and then document the size in their notes.**

September 2019: The crural pinch was at about 40 cm from the incisors and the Z line intrathoracic at 38 cm from the incisors for at least 2 to 3 cm of sliding hiatal hernia gastric content component. When the surgeon states, for a least 2 to 3 cm of sliding hiatal hernia, can we code the highest value of 3 cm? **Use the highest value.**

September 2019: What is the correct way to measure the size of a Hiatal Hernia when looking at the CT scan? Our surgeon would like to know what the STS suggests. When the patient has an EGD, the hiatal hernia size is not documented in the report. A manometry test is rarely done. **Inconsistent as to whether or not the size is documented by radiology. Leave blank if it is not documented.**

February 2020: Should we be able to get a HH size when the entire stomach is in the chest along with the colon? My surgeon said it would be higher than the highest number we can put, because it would be more than that. Do we use 20cm or leave it blank so I can let my surgeons know? **Leave blank**

---

**SeqNo:** 3060
**Long Name**: Hiatal hernia type
**Short Name**: HerniaType
**Definition:** Indicate the type of hiatal hernia.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | I - sliding hiatal hernia; GE junction is above the diaphragmatic hiatus |
| 2 | II - paraesophageal hernia; GE junction is in normal position, but a portion of the gastric fundus is above the diaphragmatic hiatus |
| 3 | III - mixed - both the GE junction and gastric fundus are above the diaphragmatic hiatus |
| 4 | IV - presence of other abdominal viscera in the hernia sac in addition to the stomach |

May 2019: Preop the size of the HH was noted as Type 3. On the surgeon's op note it states Giant HH Type 4; we could visualize that this was a type 4 paraesophageal hernia with not only 2/3 of the stomach herniated but the left lobe of the liver herniating into the chest. Do we code this as a type 4 given the worse OR findings? **Code type 4 since that is really what the patient had.**

---

**SeqNo**: 3065
**LongName:** Hernia Repair Status

**ShortName:** HerniaRepStat
**Definition:** Is this a primary repair or a reoperation?
**Intent/Clarification**:

Harvest codes:
1 = Primary Repair
2 = Re-operation

April 2019: Patient was admitted on 9/13 for a lap paraesophageal hernia repair (43281); however, the procedure was aborted midway due to some unexpected diaphragm anatomy. The surgeon felt repeat CT was needed before finalizing the repair, so this aborted procedure was coded as a lap with paraesophageal hernia "reduction". On 9/14 the patient went back to the OR and a lap paraesophageal repair (43281) was successfully completed. There doesn't appear to be a procedure code specific to hernia "reduction"… Would you consider the "reduction" on 9/13 a primary repair, albeit failed? If so, what procedure code should be selected? Presumably, the successful repair on 9/14 would then be captured as a re-operation, correct? **The first case does not need to be captured as it is not an analyzed procedure. The procedure done on 9/14 is the primary procedure.**

---

**SeqNo**: 3066
**LongName:** Initial Hernia Procedure Surgical Approach
**ShortName:** HerniaReopApp
**Definition** Indicate the approach used in the initial procedure.
**Intent/Clarification**:

Harvest codes:
1 = Laparoscopic
2 = Laparotomy
3 = Thoracotomy
4 = Not documented

June 2019: I am reviewing a case where patient underwent Re-op Laparoscopic Repair of Diaphragmatic Hernia; Partial Fundoplication. Field (3066) refers to Re-op. The initial procedure was also Laparoscopic. Question: Does field (3070) refer to Procedure Approach for Initial Procedure? Does field (3110) refer to Initial procedure or Re-op?
**3070 is current procedure approach**
**3110 is the current procedure**
**3066 is the previous procedure**

---

**SeqNo**: 3070
**LongName:** Initial Hernia Procedure Surgical Approach
**ShortName**: HerniaReopApp
**Definition:** Indicate the surgical approach used

**Intent/Clarification**:

ParentShortName: HerniaRepStat
ParentValue: “Re-operation”

Harvest codes:

1 = Laparoscopic
2 = Laparotomy
3 = Thoracotomy
4 = Not documented

---

**SeqNo**: 3070
**Long Name:** Hiatal Hernia / GERD Procedure Approach - Laparoscopic
**Short Name**: GERDAppLaparoscopic
**Definition:** Indicate whether a laparoscopic surgical approach was used by the surgeon.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3080
**Long Name**: Hiatal Hernia / GERD Procedure Approach - Robotic
**Short Name**: GERDAppRobotic
**Definition:** Indicate whether a robotic surgical approach was used by the surgeon.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 3090
**Long Name:** Hiatal Hernia / GERD Procedure Approach - Laparotomy
**Short Name**: GERDAppLaparotomy
**Definition:** Indicate whether a laparotomy surgical approach was used by the surgeon.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3100
**Long Name**: Hiatal Hernia / GERD Procedure Approach - Thoracotomy
**Short Name**: GERDAppThor
**Definition**: Indicate whether a thoracotomy surgical approach was used by the surgeon.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3110
**Long Name**: Hiatal Hernia / GERD Fundoplication
**Short Name**: ProcFundoplicate
**Definition**: Indicate if a fundoplication was performed.

**Intent/Clarification:**

ParentLongName: Collecting data for hiatal hernia or GERD

ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 3120
**Long Name**: Type of Fundoplication
**Short Name**: FundoplicateType
**Definition:** Indicate the type of fundoplication that was performed.

**Intent/Clarification**:

ParentLongName: Hiatal Hernia / GERD Fundoplication
ParentShortName: ProcFundoplicate
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Partial -includes Dor and Toupet fundoplications |
| 2 | Complete - Nissen fundoplication |

February 2020: We have 5 cases entered that had Paraesophageal hernia repairs and the code that was used is 43280. From what it looks like to me this isn't even a paraesophageal procedure. I would use the 43281 or 82 code depending if mesh was used or not. The actual procedure name done is: Laparoscopic robotic repair of giant paraesophageal hernia with Nissen fundoplication (no mesh)and EGD. There is a Fundoplication type field (3120) you can indicate the type of fundoplication which is Nissen by choosing 1 partial or 2 complete. 2 was used as it states it was a Nissen. How would this surgery be coded correctly? We did code the EGD separately as 43235 which I am not questioning**. Nissen is complete wrap 360 degrees**

---

**SeqNo:** 3130
**Long Name**: Hiatal Hernia / GERD Gastroplasty
**Short Name**: ProcGastroplasty
**Definition:** Indicate if a gastroplasty was performed.

**Intent/Clarification**: Indicate if a collis gastroplasty was performed to lengthen the esophagus.

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 3140
**Long Name**: Hiatal Hernia / GERD Mesh
**Short Name**: ProcMesh
**Definition**: Indicate if mesh was utilized.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3150
**Long Name**: Hiatal Hernia / GERD Relaxing incision
**Short Name**: ProcRelaxIncision
**Definition:** Indicate if a relaxing incision was used.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3160
**Long Name**: Hiatal Hernia / GERD - Patient Alive 1 Month after Procedure
**Short Name**: GERDPtAliveMth
**Definition:** Indicate whether the patient is alive at 30 days post operatively.

**Intent/Clarification**:

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

June 2019: My question addresses an inconsistency in the training manual for the group of questions pertaining to patient's status 30 days after GERD/HH surgery. It is quite clear that all other follow up fields are intended to capture data at least 30 days after discharge or procedure, even the readmission field. However in the training manual there is a FAQ for field 3170 that allows the use of imaging as early as POD1 to assess hernia recurrence. How is it possible to allow a center to use data for one field POD1 but all other data pertaining to that procedure must be 30 days after the procedure? Can we also use a patient's status at their PO visit, even if it occurs prior to 30 days from the procedure? **No, it is important to understand these sx within a month of surgery. We can look at changing the parent child relationship with the next upgrade**

---

**SeqNo**: 3170
**Long Name**: Radiographic recurrence - 1 month follow up
**Short Name**: RadiographRecurr1Mon
**Definition**: Indicate if patient has radiographic recurrence as defined by the presence of >10% or 2 cm of the stomach located above the level of the diaphragm on barium esophagram or CT scan within one month of surgery.

**Intent/Clarification:**

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month After Procedure
ParentShortName: GERDPtAliveMth
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

Februray 2019: All of our Hiatal Hernia Cases get a barium swallow postop in the hospital before d/c. The definition says: : Indicate if patient has radiographic recurrence as defined by the presence of >10% or 2 cm of the stomach located above the level of the diaphragm on barium esophagram or CT scan within one month of surgery. Can this surveillance barium swallow done prior to discharge count, as within one month of surgery, even though the pt is still in the hospital? Or does the patient have to be discharged and then get a barium swallow or other acceptable testing? We don't do another barium swallow until a year after surgery, unless they are having issues. **It is fine to count the postoperative in hospital swallow as the one month surveillance study. No need to D/C first.**

Februray 2019: Our pt had a laparoscopic Hiatal Hernia repair with LINX. The next day the patient had a recurrent hiatal hernia after retching and had redo laparoscopic reduction of hiatal hernia in the same episode of care. Should all the 1 month FU fields from 3170-3200 be answered as yes, even when it is within the same episode of care, because the definitions states to answer the questions within one month of surgery (1 month starts after the initial surgery, right)? We also will capture the postop events 3310=yes, unanticipated postop 3330 invasive procedure=yes and reason 3340=Other. Is the 2nd surgery (within the initial episode of care) then used to answer the questions for 30 day follow-up (3160-3200) from that surgery? **One month follow up is from the initial surgery; even if before the patient is discharged. Answer all questions relative to the index operation. All complications from the surgery should be captured.**

Februray 2019: I only have an email, over a month after our Hiatal Hernia pt had his surgery, which was sent to his Thoracic surgeon asking a question about vacation activity. I know the pt is alive at 1 month. There is no evidence of readmit to our hospital in EPIC. Can I assume that there is no radiographic/symptomatic recurrence and no endoscopic intervention or redo op? Or do we have to call the patient? I doubt they would have gotten that done anywhere else but wanted to confirm? **You should not assume anything. You should know and follow your usual follow-up process. If the patient has not been seen in clinic you should follow up with the patient.**

---

**SeqNo:** 3180
**Long Name**: Symptomatic recurrence - 1 month follow up
**Short Name**: SymptomRecurr1Mon
**Definition:** Indicate if the patient has recurrent symptoms similar to his/her preoperative symptoms within one month of surgery.

**Intent/Clarification**: Does not need to be exactly one month; most recent visit closest to one month; but at least 30 days.

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month After Procedure
ParentShortName: GERDPtAliveMth
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

---

**SeqNo:** 3190
**Long Name**: Endoscopic Intervention - 1 month follow up
**Short Name**: EndoInt1Mon
**Definition:** Indicate if the patient required endoscopic intervention for surgery related problems within one month of surgery.

**Intent/Clarification**:

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month After Procedure
ParentShortName: GERDPtAliveMth
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

September 2018: Patient had paraesophageal hernia repair. Post op required EGD dilation of esophagus. Are we to check in both seq. 3190 (endoscopic intervention w/I 1 month) in the hernia section and seq 3630 under post op events dilation of esophagus? Seems silly to document twice. **Yes. 3190 is follow up and 3630 is related to post op events.**

---

**SeqNo:** 3200
**Long Name:** Redo operation - 1 month follow up
**Short Name**: RedoOperate1Mon
**Definition:** Indicate whether the patient required a redo hiatal hernia repair within one month of surgery.

**Intent/Clarification**:

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month After Procedure
ParentShortName: GERDPtAliveMth
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

**SeqNo:** 3210
**Long Name**: Hiatal Hernia / GERD - Patient Alive 1 Year after Procedure
**Short Name**: GERDPtAliveYr
**Definition**: Indicate whether the patient is alive 1 year postoperatively.

**Intent/Clarification**: Does not need to be exactly one year; most recent visit closest to one year, but at least 1 year.

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month after Procedure
ParentShortName: GERDPtAliveMth
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3220
**Long Name**: Radiographic recurrence - 1 year follow up
**Short Name**: RadiographRecurr1Year
**Definition:** Indicate if patient has radiographic recurrence as defined by the presence of >10% or 2 cm of the stomach located above the level of the diaphragm on barium esophagram or CT scan from one month to one year after surgery.

**Intent/Clarification**:

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Year after Procedure
ParentShortName: GERDPtAliveYr
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3230

**Long Name**: Symptomatic recurrence - 1 year follow up
**Short Name**: SymptomRecurr1Year
**Definition:** Indicate if the patient had recurrent symptoms similar to his/her preoperative symptoms from one month to one year from surgery.

**Intent/Clarification**:

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Year after Procedure
ParentShortName: GERDPtAliveYr
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo**: 3240
**Long Name**: Endoscopic Intervention - 1 year follow up
**Short Name:** EndoInt1Year
**Definition:** Indicate if the patient require endoscopic intervention for surgery related problems from one month to one year from surgery.

**Intent/Clarification**:

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Year after Procedure
ParentShortName: GERDPtAliveYr
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2019: Our hiatal hernia patient had multiple readmits/interventions. When coding for Endoscopic Intervention at 30 days and 1 year, I wanted to clarify that an EGD that just looks at the esophagus for GI bleed and no intervention is done, then we code no here. However if an EGD for stent removal and stent replacement is done or an EGD with esophageal savary dilation is done, we would code yes to Endoscopic Intervention. **Yes, that is correct.**

---

**SeqNo:** 3250
**Long Name:** Redo operation - 1 year follow up
**Short Name:** RedoOperate1Year

**Definition:** Indicate if the patient required a re-do operation from one month to one year from surgery.

**Intent/Clarification:**

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Year after Procedure
ParentShortName: GERDPtAliveYr
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2019: Our pt had a prior HH surgery. In less than 2 months came back to the hospital for Epigastralgia after pill impaction in distal esophagus. He was brought back to the operating room with persistence complains of dysphagia and epigastric discomfort. He had a flexible EGD and Esophageal dilation under fluoroscopic guidance. Is this coded as 3230 Symptomatic recurrence-1 year=YES and 3240 Endoscopic intervention=YES? 3250 Redo Op is only coded if the HH has to be redone, correct? **Yes, that is correct.**

---

## Disposition

**SeqNo:** 3260
**Long Name**: Patient Disposition
**Short Name**: PatDisp
**Definition:** Indicate the location to where the patient was transferred after leaving the OR and/or PACU for routine recovery.

**Intent/Clarification**: ICU level of care counts as ICU day - ex. PACU used for ICU overflow. Do not include PACU stay unless patient was kept beyond the recovery phase as described above. If kept in PACU beyond recovery for extended care (not ICU overflow) choose intermediate care.

**This field is required for Record Inclusion. If missing data, the entire record will be excluded from the analysis.**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | ICU |
| 2 | Intermediate Care Unit |
| 3 | Regular floor bed |
| 4 | Not applicable (expired in OR) |

5 Outpatient or Observation Status

---

**SeqNo:** 3270
**Long Name:** ICU Admit this admission
**Short Name**: ICUVisitInit
**Definition**: Indicate whether the patient was taken to the ICU at any time during this admission post operatively. ***Any portion of a day in the ICU counts as a day.***

**Intent/Clarification**: All ICU days can be included on first procedure / DCF or they can be documented on each procedure DCF. Must be consistent in how ICU days are captured. **Always chart your ICU days the same way.**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3280
**Long Name**: Initial ICU Visit Days
**Short Name**: ICUVisitInitDays
**Definition:** Indicate the number of days the patient spent in their initial visit to the ICU, post-operatively. Note: <24 hours= 1 day.

**Intent/Clarification**: Count only post-operative days in the ICU. For institutions that have single stay units – the patient stays in the ICU the entire hospital stay - use the date and time that they patient's level of care changes in the ADT system to determine ICU days.

ParentLongName: ICU Admit this admission
ParentShortName: ICUVisitInit
ParentValue: = "Yes"
ParentHarvestCodes: 1

---

**SeqNo:** 3290
**Long Name:** ICU Readmit
**Short Name**: ICUVisitAdd
**Definition:** Indicate whether the patient was readmitted to the ICU following the initial ICU stay and prior to any subsequent procedures during this admission.

**Intent/Clarification**: Note: If patient has subsequent procedure during this admission and if that procedure does not require a new DCF (not analyzed or not a thoracic case) and patient went to ICU after, then include those ICU days here.

ParentLongName: ICU Admit this admission
ParentShortName: ICUVisitInit
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3300
**Long Name**: Additional Visit to ICU Days
**Short Name**: ICUVisitAddDays
**Definition**: Indicate the total number of additional days the patient spent in the ICU.

**Intent/Clarification**:

ParentLongName: ICU Readmit
ParentShortName: ICUVisitAdd
ParentValue: = "Yes"
ParentHarvestCodes: 1

## Post – Operative Events

**The risk model is an all or none model. Within the risk model complications are not tallied or delineated. The patient either has complications or they do not. Therefore, all complications / post-operative events are to be captured.**

---

**SeqNo:** 3310
**Long Name**: Postoperative Events Occurred
**Short Name**: POEvents
**Definition:** Indicate whether the patient experienced a postoperative event at any time during this hospital visit regardless of length of stay, and/or events that occur within 30 days of surgery if discharged from the hospital.

**Intent/Clarification**: This field is meant to capture any instance of postoperative events listed below that the patient developed. These need to have occurred anytime during the patient's entire hospital stay or until 30 days post-op if they were discharged.

This does not include events that occur during the operation or were present preoperatively, such as atrial fibrillation.

All post-operative events can be captured on the index case or they can be collected on each following case. Either way is acceptable, just be consistent in how you do it.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2018: A patient who underwent a lobe, then came back within 30 days for a completion pneumonectomy. Should this get a separate DCF or be included in the complication of the first operation only? **If the completion pneumonectomy was for an issue NOT cancer related, this would be captured as a complication. A new DCF would not be needed.**

November 2018: Patient has documented air leaks post-op, but still in the OR. The Op Note indicates a plan to return to the OR in a few days to correct the air leaks-the patient was taken back to the OR on POD 2. Am I correct this will be an Unanticipated Post-Operative Invasive Procedure and require a second DCF? The second surgery was a wedge resection to correct the air leak. **Don't need a second DCF. Yes, to 3310. Yes, to unanticipated PO invasive procedure.**

December 2018: A patient had a laparoscopy, paraesophageal hernia (fundoplasty) repair and had a reoccurrence on a follow-up CT scan after surgery. The patient went back to the OR for surgery and had another laparoscopy, paraesophageal hernia (fundoplasty) repair with mesh. Do I mark yes for 3310, 3330, and other for 3340? Do I also complete another DCF for the second hernia repair? **If it was in the 30 day post op or the same hospitalization window then the 2nd surgery would be a post op complication and you capture the post op complication questions. Another DCF is indicated.**

April 2019: This patient was taken to surgery for a PEH repair. The physician began as a laparoscopic case, but then proceeded to laparotomy. During the procedure he was unable to do complete the reduction. He then planned to bring the patient back for a thoracotomy and PEH reduction. The patient was readmitted and had successful surgery. This was all within the 30-day window, of the initial surgery, but how would I capture this as a post-op event? It was not an unanticipated return to surgery. It was a readmission. Will this second surgery, during the second admission, be captured as a post-op event, and if so, what? **The first case was aborted; no surgical procedure was done so there is no case to capture. Therefore the second case becomes your initial surgery.**

July 2019: I am coding for a complex esophagectomy case. Pt returned to OR for tracheo-esophageal fistula requiring stent and second return to OR for cervical esophagostomy. I know this would be an unanticipated invasive procedure, but which event best covers the TE fistula? **Document unanticipated invasive procedure and other GT.**

September 2019: A patient developed atrial flutter in the post-op period. It was of unknown duration but converted spontaneously to SR. Patient was already on a beta blocker and no adjustments were made to the BB dosage. Does this qualify for 3560 post op atrial arrhythmia? Same patient had a prolonged post-op air leak. Bronchoscopy was done to assess for bronchopleural fistula, but no evidence was found and air leak was determined to be parenchymal. A blood patch was done via the existing chest tube. Does this qualify for 3330 unanticipated post-op invasive procedure? The patient was discharged home w/chest tube but readmitted <30 days post-operatively with fever/chills, low BP and presumed sepsis. The patient's only SIRS criteria was a RR

>20 breaths per minute. Tmax was 37.8, WBC was normal, platelet count was normal. Blood cultures were negative. The admitting physician states the patient is septic, but this patient doesn't meet the crit eria for 3750 sepsis, correct? The patients pleural fluid was positive for pseudomonas aeruginosa, staph intermedius, & strep mitis. The ID physician stated the patient had an empyema and treated the patient with antibiotics and the existing chest tube was left in to drain the fluid. Does this meet criteria for 3730 Empyema? **Aflutter = no since not treated. Air leak/ blood patch not to 3330 since done through chest tube. Yes, to empyema, no to sepsis since no blood cultures. If CT remained longer than 5 days capture that.**

January 2020: If a patient went to the OR and had a wedge resection of the right upper lobe for primary lung CA then about 5 days later returned to the OR emergently due an air leak that worsened significantly and the patient developing stridor and subcutaneous emphysema requiring a right upper lobectomy, how should I code this case? Is the primary procedure the wedge resection and the lobectomy a post-op event? **Yes, correct – Wedge primary on 1st operative encounter. Lobectomy is a POE (invasive procedure).**

January 2020: Pt was NOT diagnosed with Diabetes Mellitus prior to surgery and then had a hyperglycemic episode lasting a little over 24 hours post-operatively which required new consults to Endocrine and a new regimen for the DM management (insulin injections and pump). Pt was later diagnosed with immunotherapy Type I DM. If I mark yes to #3310 Post -op events, would this event be captured under #3670 "Other GI Event"? I'm not sure how STS would like this captured. **Capture as Other GI event.**

February 2020: Pt had an esophagectomy on 12/6/2019 and was discharged on 12/17/2019.. He was readmitted on 1/5/2020, with CT showing "loculated pleural fluid in right base with peripheral …likely empyema/infection." On 1/6 the pleural fluid is drained and a pigtail CT is inserted. Also on 1/6, culture of the pleural fluid is sent and results shows moderate colonies streptococcus constellatus. So the CT is done on 1/5/2020 (POD 30). I assume I would include this, the empyema, in the postop events. However the CT insertion and the pleural fluid cultures that showed positive for organisms are all done on day 31, so do I assign infection and CT insertion as well? Or only the results from the CT on POD 30, 1/5/2020, ie empyema, Seq 3730 and readmit within 30 days? **Treatment didn't occur until the 6th, so do not need to mark. >30 days from surgery.**

May 2020: For any postoperative events, are we to only accept physician documentation of any event, or can RN or other care provider documentation suffice? For example, post-op surgical RN documented patient with urinary retention and MD was notified with new orders for straight catheter insertion. Surgeon or physician did not document this event. Is the RN documentation acceptable to select "Urinary Retention req. Catheterization" for post operative events? **Any clinician documentation is adequate, if it meets criteria.**

---

**SeqNo:** 3330
**Long Name**: Unanticipated Post-Operative Invasive Procedure
**Short Name**: PostOpInvProc
**Definition:** Indicate if the patient had an unplanned invasive procedure after surgery. Examples includes return to the operating room for a redo surgical procedure, a percutaneous procedure performed at bedside or in the radiology suite, a tracheostomy, and wound opening at bedside. Exclusions: postoperative toilet bronchoscopy, central venous access, arterial line placement, foley catheter placement.

**Intent/Clarification**: **Do not** capture planned (scheduled) or staged reoperations. A second DCF should be completed for additional analyzed procedures.

**This field encompasses 30 days post-operatively and the entire episode of acute care if the inpatient stay exceeds 30 days. This is for all procedures, not just returns to the operating room.**

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: If pt gets a chest tube for pneumothorax (radiology room). It is considered "yes" for an invasive procedure. Should we code yes for pneumothorax w/ CT as well? **Just indicate CT for pneumothorax post op event. ~~Make sure surgeons agree. No to 3330~~. Yes to 3330 also.**
November 2018: Pt is s/p esophagectomey on 9/17 has a Jejunostomy tube exchange on 9/26 in radiology due to leaking bowel contents around j tube site. Would I assign seq # 3330? Not sure this would be considered a procedure. **Yes it is a procedure. Indicate 'yes' to Seq. 3330**
January 2019: A patient had a thoracotomy with a bilobectomy and path report came back as cancer. Two days post op the patient returns to the OR due to RUL vascular congestion. A right thoractomy was done with a complete pneumonectomy. I have captured Unexpected return to OR (3330) for Other Reason and Unexpected Admission to ICU (3840) on the initial form. Since the pneumonectomy was not done for lung cancer and I code 32488 but say no to lung cancer, this will not be an analyzed procedure, correct? **That is correct. You do not need to enter second case, it is a complication of the first**
February 2019: If a patient has a lobectomy with positive margins and returns to the OR for further excision would this be considered an Unanticipated Post-op Procedure? If not, should it be placed in sequence 3830 - Other Events requiring OR with General Anesthesia? Similarly, if a patient has a prolonged air leak following lobectomy and returns to the OR for a wedge repair should it be considered an Unanticipated Post-op Procedure (3330) or Other Events requiring OR with General Anesthesia (3830). I guess the general question is what is classified as a staged procedure - does it need to be anticipated prior to surgery or can it be determined after surgery? **These examples are not staged procedures. Staged procedures must be planned on prior to surgery. You should document all events that occur. In your examples you would indicate: Trach – yes, to 3330, 3340, 3530 and 3830. Chest tube for pleural effusion – yes to 3330, other on 3340 and 3450. Indicating all these will not impact star rating as complications are an "all or none" situation. The patient either had complications or they did not.**
February 2019: Pt had pneumonectomy. Postop had bronch to check bronchial stump status, which was intact, no further intervention. BAL done during bronch, no growth. Also had pigtail drain placed in IR to obtain pleural fluid culture, no growth. Per surgeon, pigtail only placed to obtain culture, not to drain pleural effusion so #3450 does not apply. Do either the bronch or pigtail drain - or both - qualify for #3330? Would appreciate more clarification regarding this element. **Bronchs or pigtails are routinely planned prior to surgery. If it all goes as planned, you would do neither. They are both seq #3330.**
February 2019: Would a talc pleurodesis done at the bedside post Thoracoscopy be captured here? **Yes, if done post operatively.**
March 2019: Pt had an air leak post op and went home with a chest tube to a mini atrium, went for f/u visit the following day, chest tube still needed, 6 days post op - enlarging ptx, readmitted and had pleurodesis with bleomycin done, chest tube was not replaced at all. Does this qualify for an invasive procedure? **Yes** I had coded the airleak and readmission, but still stump on the pleurodesis should it be other pulmonary event (3550)? **Yes**
June 2019: Patient is S/P Ivor-Lewis. He has developed a Gastrobronchial Fistula, Necrotic Esophagogastric

Anastomosis. I will capture this as Unaticipated Post-Op Invasive Procedure (Seq#3330), but what other Seq #'s should I apply to this? During this surgery, they do a removal of the distal esophagus and gastric conduit. Will I complete a second DCF since this is not related to the cancer? **You do not need another data collection form. Select seq. 3340 – conduit failure and select seq. 3640 – conduit necrosis requiring surgery.**

June 2019: Pt had lobectomy on 4/3. During a coughing fit on 4/23, while in a post op visit, she coughed and copious amounts of serous fluid poured out of her chest tube site. 3 mattress sutures were placed to close 2 cm defect after local given. My question is, do I assign this as a postop event and if so, under seq 3330? **This is not an invasive post-operative procedure.**

June 2019: The training manual now says that this field is for "ALL invasive procedures....not just returns to OR". So, how can you use it in the star rating as "Unanticipated return to OR"? Also, when it is used for "any" procedure as a parent field....the child fields are now often irrelevant. For instance, which "reason for invasive procedure" would you choose for a PEG performed in the GI lab?? The only option would be "other" but given the major problems it is grouped with...it doesn't seem fitting at all for something invasive yet minor. Also, it is my opinion that these changes should stop being made randomly at any time. How can you use this field as an indicator in the star rating when the definition changes are done in the middle of a reporting period? **I hear your frustration. The change to 'return to OR' field was made at the time of the upgrade, July 1, 2018. It was made to capture all procedures done post-operatively, not just those done in the OR, since many procedures can be done outside of the OR. If the child field you are indicating is not listed then you should indicate 'other' in the child and indicate the post-operative event that occurred in the post-operative event section. So, for your PEG example you would mark seq. 3330 'yes', seq. 3340 – 'other', and seq. 3670 – 'other'. Changes are never made in the middle of versions. However, errors are corrected and field definitions are clarified**.

June 2019: One question we have is regarding coding for PO EGD in esophagectomy patients. We do it either in the OR or in the GI lab. When it is done in the OR, it is being coded as an unexpected return to the OR, but in the GI Lab, it is not coded at all. What is the proper way to code PO endoscopy for the STS database? **If the EGD was planned (prior to the surgery) to be done post-operatively, it is not a complication and would not be captured. If the EGD was not planned to occur post surgery then it is a complication and would be captured.**

Septemeber 2019: Would a nerve block done by anesthesia count as a post-operative invasive procedure? "Left 8th rib minimally displaced fracture: Admitted for pain control, Pain is now controlled
-Michigan pain Institute consulted for nerve block-T8/9 INB on 5/15/2019" **Not an invasive procedure**

October 2019: The patient had a Robotic Segmentectomy for lung CA. Post discharge, the path report came back and the surgeon states "It demonstrates a good margin around the known lesion but separate small foci of tumor surrounding the bronchial margin and at the staple line margin. This represents multifocal disease. These separate tumor nodules are all 2-3 mm in size without evidence seen on imaging or at the time of resection." The patient returns to OR for Robotic Lobectomy. How do I capture this? **Yes, count this as 3330 and enter the completion lobectomy as a separate case/DCF.**

October 2019: We had a pt that had a left pneumonectomy on 7/31/19, did well perioperatively until POD 8 when she was readmitted with a left pneumonectomy wound infection. There was some purulent drainage and minimal erythema. It was opened at bedside via thorancentesis and the wound and pleural fluid were cultured and pt started on ABs. The wound culture grew 3+ VIRIDANS STREPTOCOCCUS, ANGINOSUS GROUP and 3+ EIKENELLA CORRODENS. She then got a wound vac placed. On the FU visit note 8/27/19 it stated, she had considerable obstructive pneumonia component, and her extraction wound had SSI with flora compatible with postobstructive pneumonia flora. Her incision has healed well with no packing necessary and she completed AB therapy. Should 3330 Unanticipated post-op invasive procedure be coded Yes; **Yes** and 3340 Primary Reason for Procedure be coded as Other? **Correct**.

For Infection should Surgical Site Infection 3740 be coded as Deep (opened wound, placed a drain and then wound vac)? **Yes.** The pt had one elev WBC of 11.81 which then was normal, no infiltrate on CXR, Temp only 100.1, and there was no sputum culture so I did not code Pneumonia. Do we also code Other Pulmonary Event 3550 if we code 3330 or 3740; seems like double coding? **Use 3740, not 3550**

February 2020: Patient came in for paraesophageal and Spigelian hernia repair. Procedures both performed in same OR visit. Each procedure performed by a different surgeon. Paraesophageal hernia repair was completed first. Patient post op developed hemoperitoneum requiring re-intubation (it was agreed that this was complication of the Spigelian hernia procedure.) Patient also developed volvulus requiring return to the OR (it was agreed that this was a complication of the paraesophageal hernia repair.) Should both diagnoses and procedures be coded (diaphragmatic hernia repair and "other") and both complications entered into the database? **Yes, you must count all complications.**

February 2020: I am validating cases that had major complications and I have two cases that are being counted as a return to the OR that I am questioning. Both of these cases had a leaking chest tube site after surgery and went to the ER and had a stitch or two placed at the bedside and went home. The training manual makes it sounds like this would count, but that does not make sense to me. **No. reference FAQ June 2019 above for similar scenario.**

February 2020: Patient's lung nodule was discovered incidentally during CT CAP done for flank pain. In addition to lung nodule, CT CAP found sizable stone in L renal pelvis. Pt then CT needle biopsy followed by lobectomy for typical carcinoid tumor. Discharged without incident after 3 days. Preop lobectomy H&P documents kidney stones in Active Problem List. Within 30-day window of discharge from lobectomy, patient returned to hospital under Observation status and was taken to OR for cystoscopy and ureteral stent. Per seq #3310 Post Op Events "This does not include events that occur during the operation or were present preoperatively." My question is whether the cysto/ureteral stent qualifies for #3330 given that kidney stones were present prior to lung resection. **If the cyctoscopy and stent were planned prior to the lobectomy, then it does not need to be captured as post-op event it was a planned procedure.**

February 2020: Patient had thorascopic Wedge resection. In PACU has increased drainage from chest tube. and returns to OR from PACU for exploratory thorascopic with washout and removal of clot and control of bleeder with clips and cautery. Does this count as return to OR since they never left PACU. **Yes, they left the OR so it counts**

April 2020: NGT was displaced. Patient had an NGT placed with flouroscopic guidance. Would this count as Unanticipated P-O Invasive Procedure - Other? **NO, this would not count as Unanticipated P-O invasive procedure.**

---

**SeqNo:** 3340
**Long Name**: Primary Reason for procedure
**Short Name:** ReturnORRsn
**Definition:** Indicate the primary reason the patient returned to the OR.

**Intent/Clarification**: includes procedure suite.

ParentLongName: Unanticipated Post-Operative Invasive Procedure
ParentShortName: PostOpInvProc
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Bleeding |
| 3 | Bronchopleural Fistula |
| 4 | Empyema |
| 8 | Middle lobectomy for torsion |
| 7 | Conduit necrosis/failure following esophageal surgery |
| 6 | Other |

February 2019: How should I differentiate choosing 3640 vs. 3340? What is the distinction? **No distinction, capture both.**

March 2019: Is a paraconduit hernia following an MIE considered to be a "conduit failure," or should it be treated as a type of diaphragmatic hernia? if the patient returns to the OR to have the paraconduit hernia reduced and pexied, should it be captured as a conduit failure, or as other? In essence the question is whether or not the STS wants to treat paraconduit hernias after esophagectomy as diaphragmatic hernias requiring the collection of all of the additional elements for Hiatal Hernia/GERD, or if they consider a paraconduit hernia to be a unique type of conduit "failure". This STS decision will affect both the diagnosis codes and CPT codes as well as the post-operative events. Because of our high volume of esophagectomies, we do encounter patients with conduit hernias. In fact, I am currently working on a patient that had a conduit hernia and then a recurrence of that same hernia within three months of his original Ivor Lewis. He had the conduit surgically reduced and repaired twice on both an urgent and emergent basis. Intuitively it seems incorrect to treat those cases as routine Hiatal hernia situations. I am more inclined to use "Abnormal Radiological Finding" and a conduit revision CPT code for those operative events. As for the post-operative event question, would it fall under "conduit failure," or "Other"? **This is not a conduit failure. Document as 'other'. Diagnosis would be diaphragmatic hernia. What was the timeframe to the original surgery? If past 30 days then do not need to capture.**

June 2019: This patient had an Ivor-Lewis and subsequently developed abdominal distention, free intraperitoneal air. Upon return to the OR, a laparotomy was performed for antibiotic irrigation of the abdomen and drainage of the pyloromyotomy site and hiatus. How do I capture this for Seq 3340? Would it be "Other"? **Select 'yes' for seq. 3330 and 'other' for seq. 3340.**

---

**SeqNo:** 3350
**Long Name:** Anastomotic leak following esophageal surgery
**Short Name**: PosOpProcAL
**Definition:** Indicate if the patient had an anastomotic leak following esophageal surgery.

**Intent/Clarification**:

ParentLongName: Unanticipated Post-Operative Invasive Procedure
ParentShortName: PostOpInvProc
ParentValue: = "Yes"

ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

January 2019: If anastomotic leak is suspected on CT, pt placed on antibiotics and stent but MD notes leak not seen on endoscopy, would this be counted as post op event and if so, which one? **Yes, this is a post operative complication; post op anastomotic leak with stent placement. Leak was suspected and treatment was done. Capturing the treatment.**

---

**SeqNo:** 3360
**Long Name**: Anastomotic Leak - Surgical Drainage and Repair
**Short Name**: PosOpProcALRepair
**Definition:** Indicate if surgical drainage and repair were utilized for the anastomotic leak.

**Intent/Clarification**:

ParentLongName: Anastomotic leak following esophageal surgery
ParentShortName: PosOpProcAL
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3370
**Long Name**: Anastomotic leak - Stent placement
**Short Name**: PosOpProcALStent
**Definition:** Indicate if stent placement was utilized for the anastomotic leak.

I**ntent/Clarification:**

ParentLongName: Anastomotic leak following esophageal surgery
ParentShortName: PosOpProcAL
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 3380
**Long Name:** Anastomotic leak - Additional Chest Tube Placement
**Short Name**: PosOpProcALTube
**Definition**: Indicate if additional chest tube placement was utilized for the anastomotic leak

**Intent/Clarification:** surgically placed chest tube; not placed in interventional radiology

ParentLongName: Anastomotic leak following esophageal surgery
ParentShortName: PosOpProcAL
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3390
**Long Name**: Chylothorax Present
**Short Name:** ChyloPres
**Definition:** Indicate if the patient had a chylothorax

**Intent/Clarification**:

ParentLongName: Unanticipated Post-Operative Invasive Procedure
ParentShortName: PostOpInvProc
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

June 2019: Pt has a chronic loculated pleural effusion and is brought to the OR for drainage and decortication. During surgery, he is found to have a chronic loculated chylous effusion. Post op he has chyle drainage from his chest tube and is treated with very low fat diet and octreotide . Since this was found intraop, I assume I do not assign seq 3390, nor would I assign 3820? **Is this a lung cancer case? If not, it will not be analyzed. Since it was present intraoperatively it is not a post op event.**

---

**SeqNo:** 3400
**Long Name:** Chylothorax requiring surgical ligation of thoracic duct

**Short Name**: PosOpProcChylotho
**Definition:** Indicate if the chylothorax required surgical ligation of the thoracic duct.

**Intent/Clarification:**

ParentLongName: Chylothorax Present
ParentShortName: ChyloPres
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3410
**Long Name:** Chylothorax - Thoracic duct embolization attempted
**Short Name**: PosOpProcEmboli
**Definition**: Indicate if thoracic duct embolization was attempted for chylothorax.

**Intent/Clarification:**

ParentLongName: Chylothorax requiring surgical ligation of thoracic duct
ParentShortName: PosOpProcChylotho
ParentValue: = "No"
ParentHarvestCodes: 2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**.SeqNo:** 3420
**Long Name**: Chylothorax - Thoracic duct embolization successful
**Short Name:** PosOpProcDuctSucc
**Definition:** Indicate if thoracic duct embolization was successful.

**Intent/Clarification:**

ParentLongName: Chylothorax - Thoracic duct embolization attempted
ParentShortName: PosOpProcEmboli

ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3430
**Long Name**: Air Leak Greater Than Five Days
**Short Name:** AirLeak5
**Definition:** Indicate whether the patient experienced a postoperative air leak for more than five days.

**Intent/Clarification**: Air leaks pre-op do not count toward the 5 day limit. Days must be consecutive.

**Count from the day the air leak was documented to when the chest tube comes out, even if the patient went home. If air leak is greater than 5 days, then 'yes'**.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes:

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: Patient is discharged with pleurx catheter for malignant pleural effusion placed during OR, no noted air leak at time of discharge. He is readmitted the next day with crepitus and a positive air leak. Remains hospitalized with pleurx to suction for >5 days. Do I code this as a postop air leak if he was discharged without and air leak but readmitted with one? **Yes, this a post op event since it occurred within the post operative period.**
November 2019: Do surgery on Tuesday, discharge pt on a Thursday with a CT, first appointment date is Monday automatically puts these patients at > than 5 days post op. Any ideas thoughts suggestions? I**f the patient is discharged on Thursday with a CT and not seen until Monday it would be counted as an air leak greater than 5 days. This is addressed above: *Count from the day the air leak was documented to when the chest tube comes out, even if the patient went home. If air leak is greater than 5 days, then 'yes'*.**
December 2019: If a patient is discharged with a pleurx catheter for a malignant pleural effusion placed during OR on a Wednesday and they are discharged with documentation of no air leak, and the patient comes in the office on Monday to have Pleurx catheter removed, do I have to code air leak just due to the pleurx catheter? **Check yes discharged with chest tube. No to the air leak**
January 2020: Patient is S/P Lobectomy had small air leak postop, resolved in 3 days and chest tube was removed. Patient developed small pneumothorax on post pull xray and significant crepitus.Pigtail placed and patient discharged with air leak and chest tube. Since original air leak resolved with in 3 days but later developed crepitus and pneumothorax, Do i code pneumothorax for postop complication and do I also code air

leak? **Pneumothorax = Yes; Air leak >5 days = Yes IF the air leak persists for 5 consecutive days on the reinsertion.**

February 2020: Patient was discharge on day 4 with air leak during valsalva and chest tube. Should air leak greater than 5 days be coded yes? **Yes, unless they got the CT removed on day 5 b/c the air leak was resolved.**

---

**SeqNo:** 3440
**Long Name:** Atelectasis Requiring Bronchoscopy
**Short Name**: Atelectasis
**Definition:** Indicate whether the patient experienced atelectasis requiring a bronchoscopy in the postoperative period.

**Intent/Clarification**: Atelectasis is collapse of lung tissue that is often diagnosed on chest x-ray.

ParentLongName: Postoperative Events Occurred
**ParentShortName**: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

April 2019: When a patient has a sleeve lobectomy, 32486, our physician plans, and routinely performs a bronchoscopy POD 1 or POD 2. Is this counted as a post op event, and if so, is there a way to document at the time of surgery the intent to perform this bronchoscopy, so it will not be counted as a post op event? **This is normal post op care for this procedure, so it is not a post op event.**
October 2019: Are all elective bronchoscopies done after lobectomies before discharge considered as normal post operative care? **Must be clearly documented pre-operatively that the bronch is planned to happen post-op to not count it as 3330.**

---

**SeqNo:** 3450
**Long Name:** Post-op-Pleural Effusion Requiring Drainage
**Short Name**: CPlEff
**Definition**: Indicate whether a postoperative pleural effusion required drainage via thoracentesis or chest tube insertion.

**Intent/Clarification**: Include only effusions requiring drainage with thoracentesis or chest tube. Do not code medically managed effusions.

ParentLongName: Postoperative Events Occurred

ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

June 2019: A patient s/p RML lobectomy has a pleural effusion upon discharge. At his post-op clinic visit (on POD20), the effusion has enlarged. At his repeat post-op visit (on POD 25) the effusion persists, and a plan is made to have it drained on POD 32. Should this count as a post-operative event that occurred within 30 days? Do you count the day that the event was diagnosed, or the day that it was treated? **The day that it was treated.**

---

**SeqNo**: 3460
**Long Name**: Pneumonia
**Short Name**: Pneumonia
**Definition**: Indicate if the patient experienced pneumonia in the postoperative period. Pneumonia is defined as meeting three of five characteristics: fever (≥ 100.4 F or 38 C), leukocytosis, CXR with infiltrate, positive culture from sputum, or treatment with antibiotics.

**Intent/Clarification**: Note: atelectasis and effusions do not necessarily indicate pneumonia, and neither does a single positive sputum culture without the other criteria/clinical findings documented.

Code yes if three of the criteria are met.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2018: Pt has preop EBUS/Bronch and BAL cultures positive for Aspergillus patient started on Itraconazole felt to be colonized and not actively infected (postobstructive). Currently taking Itraconazole (antifungal) at time of surgery. Patient has Sleeve lobectomy BAL from OR is positive for Aspergillus, GND, GPC and started on Zosyn postop day of surgery. Patient has increased WBC and atelectasis POD#2 and is started on Vanco. Do I code postop complication of pneumonia? Although cultures show same fungal also bacterial and symptomatic postop? **This is not a POE since the patient had it pre-operatively.**
May 2019: If a patient is started on antibiotic for presumed Pneumonia and stopped within 48hrs. If MD decides patient does not have Pneumonia. Does this still count for postop PNA? **This does not sound like**

**pneumonia. Treatment was for only 48 hours. There must be documentation of pneumonia in the medical record and the patient must meet at least two other criteria.**

June 2019: The patient had a continued airleak following lobectomy. The patient had a bronchoscopy and was diagnosed with an Alveolar plueral fistula and an Endobronchial valve was placed to stop the leak. Would I assign yes to the variable Bronchoplueral fistula? **No, BPF specifically refers to a communication with the bronchus, not the parenchyma.**

November 2019: Some definitions that we are aware are not in alignment with how we would classify things: Pneumonia 3 of 5 indicators meets pneumonia but could be met by just being post-op. **The intent of this field is to capture whether or not the patient had post – operative pneumonia. The patient must meet 3 of the 5 criteria listed in the training manual to be captured for the database as having pneumonia. The fact that the patient is post-op does meet the criteria.**

December 2019: Per definition, " CXR with infiltrate " is one of the 5 variables for the condition to be coded as pneumonia. Is the word infiltrate the same as opacity and consolidation or only the term infiltrate is acceptable. **Infiltrate is the same as opacity and consolidation**

April 2020: Recently we had a patient whose CXR showed RML infiltrate concerning for aspiration pneumonitis. This patient developed respiratory failure and subsequently placed on VV ECMO. Our clinicians are stating this patient has pneumonia. On our end, this clinical scenario did not meet the definition of 3 requirements to capture PNA. He received antibiotics, and had infiltrates, however no elevated white blood cell count or positive culture. However, it did lead to interesting consideration/discussion with our providers - since body temperature can be regulated via the oxygenator/heat exchanger on an ECMO circuit, temperature would be externally manipulated and a fever would potentially not present. As a health system who does quite an amount of ECMO, should we be factoring this in when deciding on to capture pneumonia or not? **No, in general a very small percentage of patients will be on ECMO. Follow the definition as stated in TM**.

---

**SeqNo:** 3470
**Long Name**: Acute Respiratory Distress Syndrome
**Short Name:** ARDS
**Definition**: Indicate whether the patient has evidence of ARDS (Acute respiratory distress syndrome). According to the American-European consensus conference, a diagnosis of ARDS is assigned if all of the following criteria are present:

1 Acute onset
2 Arterial hypoxemia with PAO2/FIO2 lower than 200 (regardless of PEEP level)
3 Bilateral infiltrates seen on chest radiograph
4 Pulmonary artery occlusive pressure lower than 18 mm Hg or no clinical evidence of left atrial hypertension
5 Compatible risk factors

**Intent/Clarification**: Code yes if ARDS is documented in the record or if the above criteria are met.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3480
**Long Name**: Respiratory Failure
**Short Name:** RespFail
**Definition:** Indicate whether the patient experienced respiratory failure in the postoperative period requiring mechanical ventilation and/or reintubation.

**Intent/Clarification**: Inadequate gas exchange resulting in hypoxia and or hypercarbia. Collect reintubation here. Do not count BiPAP as reintubation. Ventilator support ends with the removal of the endotracheal tube or if the patient has a tracheostomy tube, until no longer ventilator dependent.

Examples:

This patient was trached prior to surgery. Post-op the patient was kept on the vent >48hr. (Initial Vent Support >48h-YES), but weaning trials began. The patient is on a trach collar during the day, but returned to vent support (pressure support) overnight. Does this qualify as Respiratory Failure? **No, since the patient was never fully extubated this is not a reintubation.**

Similar to this situation, if efforts are made to wean the patient from the vent, but intermittent use of vent support continues during the weaning process, does is also qualify as a yes to Respiratory Failure? **No, it is not a reintubation.**

If a patient arrives to next level of care (example: ICU), vented and intubated after their procedure, would this be considered Respiratory Failure? **No, the patient was not re-intubated.**

Pt with low P02 on the day after surgery, and a brief period of apnea just after surgery treated with a 30 minute re-intubation (for Sp02 of 91%, poor ventilatory effort and minimal breath sounds). Pt was able to go home 3 days after surgery. Is this an appropriate use of this complication / event? **Yes, the patient was re-intubated, this is Respiratory Failure.**

Is it appropriate to code Resp Failure for an immediate re-intubation just after surgery which was then removed the day after surgery? **Yes it is appropriate to document Respiratory Failure since the patient was re-intubated. This meets the definition of Respiratory Failure**.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |

2 No

October 2018: Does Respiratory Failure (3480) include reintubations for patients not given enough time to wake up from anesthesia? **If the reintubation is done while still in the OR due to failure to emerge from anesthesia, then it is NOT respiratory failure. If the patient is reintubated outside of the OR due to respiratory issues then it would be considered respiratory failure.**
December 2018: End of procedure, pt. extubated in OR & sent to PACU. Had bleeding. Returned to OR, re-intubated to stop bleeding, extubated again & returned to PACU. This patient did not go into respiratory failure but because it says re-intubation we mark this as yes? **No, patient was reintubated for another procedure not respiratory failure.**
February 2020: Pt is postop thoracic surgery and has a seizure (?history of seizures) Intubated for airway protection. would you code this Respiratory failure due to reintubation? **Yes, you would code the resp failure due to reintubation.**

---

**SeqNo:** 3490
**Long Name:** Bronchopleural Fistula
**Short Name**: Bronchopleural
**Definition:** Indicate if the patient experienced a documented bronchopleural fistula in the postoperative period. Bronchopleural fistula is defined as a major bronchial air leak requiring intervention such as a chest tube, operation, or other procedure.

**Intent/Clarification**: There may be a complete or partial dehiscence of the bronchial stump in the postoperative period.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3500
**Long Name:** Pulmonary Embolus
**Short Name**: PE
**Definition**: Indicate whether the patient experienced a pulmonary embolus (PE) in the postoperative period as experienced by a V/Q scan, angiogram or spiral CT.

**Intent/Clarification:**

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents

ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

April 2019: Patient was treated for a presumed PE after a VATS lobectomy but no CTA or VQ scan was done because of further risk to kidneys. He was maintained on a heparin drip and then discharged on Eloquis. Do I answer yes or no to PE as a post-op event? **Per the training manual this is a 'no' since there is no testing. Look at follow up note also to see if any testing was done in the post op period. Ask the surgeon also.**

---

**SeqNo:** 3510
**Long Name**: Pneumothorax req. CT
**Short Name**: Pneumo
**Definition:** Indicate whether the patient experienced a postoperative pneumothorax requiring chest tube reinsertion.

**Intent/Clarification**: Only code a pneumothorax that required reinsertion of a chest tube. Do not code pneumothorax mentioned on CXR but not treated.
Example:
Patient went home with Heimlich Valve due to "small apical pneumothorax." The definition for Post-op events states: "pneumothorax requiring chest tube reinsertion." This patient never had his removed, they just left it in. Does this count as a post op event or not? Code this as air leak >5 days, not pneumothorax.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: If a patient had a chest tube inserted d/t pneumothorax causing hypoxia after the end of the case and extubation but PRIOR to leaving the OR, does this count as a post-op event? **No, if in the OR it is not a post op event.**
June 2019: Surgeon's attempt to reinsert CT for pneumothorax post-op failed. Patient was monitored with daily xrays until issue resolved. Do I answer 'No' since CT was not re-inserted even though it was attempted? Additional info: Patient's hospital course was complicated by continued air leak, which did require attempt at apical chest tube placement. The space could not be accessed unfortunately. Both chest tubes were removed prior to discharge, there was a small apical pneumothorax noted on the post removal chest x-ray. **Was more than 5 days? If so, can mark 'Yes' to air leak greater than 5 days. Select 'No' to Pneumo since CT was not reinserted.**
June 2019: Pt has LUL Lobectomy on 4/11/2019 on PO day 1, 4/12/2019, CT was pulled. Pt developed a

significant subq emphysema requiring a pig tail chest tube placement which ultimately exchanged for a surgical chest tube done at the bedside. Air leak and subq emphysema resolved on 4/16/2019, CT was pulled and pt discharged. The chest xray done on 4/12 states, "No significant pneumothorax. Extensive left subcutaneous emphysema is noted". So the chest tube was placed for subq emphysema. Do I assign Pneumothroax req CT (Seq 3510) or other Pulm (Seq 3550) and Unanticipated procedure (Seq 3330)?. Pt only had documented air leak for 5 days. **This is a pneumothorax requiring a CT. The patient likely didn't have pneumothorax on the initial chest X-ray due to chest tube being in place. Mark 'yes' to 3330 also.**
October 2019: Patient is s/p VATs wedge resection. Post op increased O2 requirements. CXR shows pneumothorax. Additional pigtail is inserted, with no improvement in pneumothorax. Chest CT completed shows pigtail is intraparenchymal and is then removed. no further interventions.
Repeat CXR following day pneumothorax is resolving. Question is if the pigtail intervention for the pneumothorax was never in the correct place and pneumothorax resolved on its own. Does the misplaced pigtail count as intervention and this is coded as a postop complication of pneumothorax? **YES**
February 2020: Patient had lobectomy for lung cancer. Came back 2-3 weeks later for insertion of chemo port and after that procedure developed a pneumothorax requiring chest tube. Should this be captured as a post-operative event? **Yes, it is a pneumo and it would also be a post-op invasive procedure for the CT insertion**

---

**SeqNo:** 3520
**Long Name:** Initial Vent Support >48 Hours
**Short Name:** Vent
**Definition:** Indicate if the patient initially was ventilated greater than 48 hours in the postoperative period.

If the patient is reintubated, select the postoperative event "Respiratory Failure" and do not select this element even if the reintubation ventilator support is > 48 hours. Ventilator support ends with the removal of the endotracheal tube or if the patient has a tracheostomy tube, until no longer ventilator dependent.

**Intent/Clarification:** The length of initial ventilatory support should be noted once the patient has the endotracheal tube removed after the operative procedure. For patients that are re-intubated in the operating room at the conclusion of the operation, this should still be considered initial ventilator support and not re-intubation.

**Use the time the patient leaves the OR to the time of extubation.**

Example:
Patient had a trach placed during their surgery for an Esophagectomy. They are on and off the vent with trials longer than 48 hours before the vent is removed. Does Initial Vent Support > 48 hours include being put back on for rest, at night or not? **Yes, initial ventilator support > 48 hours should be coded in this situation. The patient had vent support for more than 48 hours even though they were removed for short periods of time.**

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|

| | |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3530
**Long Name**: Tracheostomy
**Short Name:** Trach
**Definition**: Indicate whether the patient required a tracheostomy in the postoperative period whether performed in the ICU or the OR.

**Intent/Clarification**: Do not include changing out a tracheostomy tube that was present preoperatively or tracheostomy done intraoperatively, during the initial operation.

Prophylactic mini-tracheostomy performed during surgery should not be considered a complication.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3550
**Long Name**: Other Pulmonary Event
**Short Name**: OtherPul
**Definition:** Indicate whether another pulmonary event occurred in the postoperative period.

**Intent/Clarification**: Pulmonary events not listed that extend the length of stay or impact the patient's outcome.

Example: BiPap

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: If the patient is discharged on home oxygen after surgery, should we capture in both these places. **Only indicate in the home with O2.** **See Feb 2020 update for further clarification**
October 2019: If patient had a pulmonary air leak LESS THAN 5 days duration post-op, do we capture this post-op complication under "Other Pulmonary Event"? **NO**
December 2019: If patient had an air leak LESS THAN 5 days duration, would we document this post-op event under "Other Pulmonary Event" (3550)? Or only acknowledge an air leak that is greater than 5 consecutive days? **Only capture if greater than 5 consecutive days.**
January 2020: The patient is discharged from the index procedure admission without home O2. He is readmitted and then dc'd with home O2 within the 30-day window of the index surgery. Would this be a POE, and if so, wouldn't it be 3550 Other Pulmonary Event?**If a patient is discharged without O2, is readmitted and is subsequently discharged with home O2, the oxygen per se is not a post-op event. The reason for the readmission is more appropriate as the POE.**
February 2020: Would Sub Q empysema/crepitus which was treated with air outlet incisions be considered an "Other Pulmonary Event"? Patient had subcutaneous air outlet incisions placed to the allow the air to be expelled. **No to other pulmonary. Yes to unanticipated post-op invasive procedure.**
February 2020: In the definition states that if pt requires new O2 post op( Bipap/Cpap) this field should be captured as YES. However in the FAQ below, it states that new O2 requirement should not be captured in 3550. Could you please clarify and provide with scenarios when this can be used? FAQ- November 2018: If the patient is discharged on home oxygen after surgery, should we capture in both these places. Only indicate in the home with O2. **If use of Bipap, capture it. If patient is just sent home on O2, then do not capture this, just mark home on O2. If both, then mark both.**
April 2020: Pt has surgery on 1/2 (Lobectomy), Ct with air leak noted 1/3. Started having SQ emphysema extending from the upper chest to mid-face on 1/5 and was transferred to ICU secondary to increasing oxygen requirements. The CT was maintained on suction, emphysema improved, and was transferred back to floor 1/8 , ultimately discharged on 1/10 with O2. Do I assign Seq # 3550, OtherPul, due to increasing oxygen requirements from the SQ emphysema? **For this scenario, you would code Airleak > 5 days and unexpected admit to ICU**

---

**SeqNo**: 3560
**Long Name**: Atrial Arrhythmia Requiring Treatment
**Short Name**: AtrialArryth
**Definition**: Indicate whether the patient had a **new onset** of atrial fibrillation/flutter (AF) **requiring treatment**. Does not include recurrence of AF which had been present preoperatively. Exclude patients who were in AFib at the start of surgery.

**Intent/Clarification**: This field is intended to capture **new onset of atrial arrhythmias (atrial fibrillation/flutter or other atrial dysrhythmia) following surgery**. Treatment may include medications to slow the heart rate, increase the blood pressure, or any anti-coagulation administered for embolic prophylaxis. This does not include those patients with a preoperative history of atrial arrhythmias.

Include any episode of A-Fib lasting longer than one hour and/or requiring treatment. ~~Capture event(s) in all patients who were not in A-Fib at the start of surgery.~~

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: **Treated SVT should be collected as an atrial arrhythmia post-operative event along with treated, new onset afib/flutter.**
May 2019: In reading the most recent training manual (April 22) I saw a note that Afib should be captured as a complication for " all patients who were not in A-Fib at the start of surgery" This is such a major definition change that it would completely invalidate all prior data collected. My institution closely tracks the rate of afib, and I have always used the definition of new-onset afib that the STS dictated. This definition change needs to be seriously considered for revision - it would make accurate comparison impossible and difficult to measure the effects of interventions to reduce post-op afib. In general, please stop changing definitions every month - I tend to just ignore them for the sake of data consistency**!!! The post op event definition for a fib has not changed. Any patient with new onset of afib post-operatively should be captured. If the patient has a history of Afib or are in afib at the start of surgery are excluded. An additional clarification was added several months ago to exclude patients who are in afib at the start of surgery.**
June 2019: Multiple H & P reports that "pt has a history of PAT which required ablation". I did not find any documentation if it is afib or aflutter. Pre-op, not on beta blockers and EKG is NSR. Developed afib post op that was converted with a one time dose of IV Metoprolol and discharged on po Metoprolol. Do I capture the "PAT" on 490, thereby a No on 3560? Or No to 490 and Yes to 3560? **Select 'no' on seq. 490 and select 'yes' on seq. 3560**

---

**SeqNo**: 3570
**Long Name**: Ventricular Arrhythmia Requiring Treatment
**Short Name**: VentArryth
**Definition:** Indicate whether the patient, in the postoperative period, experienced sustained ventricular tachycardia and/or ventricular fibrillation that has been clinically documented and treated with any of the following treatment modalities:

1. ablation therapy
2. AICD
3. permanent pacemaker
4. pharmacologic treatment
5. cardioversion

**Intent/Clarification**: Atrial fibrillation with rapid ventricular response (RVR) is not a ventricular arrhythmia.

Treated SVT should be collected as an atrial arrhythmia post-operative event along with treated, new onset afib/flutter.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

August 2018: The patient has an episode of SVT (HR 160-170 bpm) associated with dyspnea. Cardiology is consulted and patient has no previous cardiac history. He received Metoprolol IV and converted to sinus tach. Is this captured under seq 1890, or would it be captured under seq 1920, Other Cardiac Event? **SVT is not a ventricular arrhythmia, it is actually an atrial arrhthymia and should be coded in that section.**
January 2019: Patient discharged home following lobectomy, no postop events (POE) during admission. Several days later patient called EMS c/o SOB. Per chart "EMS arrived on scene at 1402 and noted the patient to be unresponsive and have agonal breathing. 2 minutes later, they lost a pulse and the patient went into the PEA. They began ACLS protocol. En route, they gave a total of 7 rounds of epi. The patient had a run of v fib near the hospital. They shocked him twice. The patient went back into PEA." Patient was unable to be resuscitated in ED and was pronounced shortly after arrival. How do I capture this POE? Does run of v fib treated by shock qualify as seq #3570, Ventricular Arrhythmia? Or is this only captured as Other CV Event, seq # 3600? Or is it both 3570 and 3600? **Capture Respiratory failure, Ventricular Arrhythmia, and Other, CV. Capture the death. Ensure the dates all align.**

---

**SeqNo**: 3580
**Long Name**: Myocardial Infarct
**Short Name**: MI
**Definition**: Indicate if the patient experienced a MI postoperatively as evidenced by:

1. Transmural infarction: Defined by the appearance of a new Q wave in two or more contiguous leads on ECG, or
2. Subendocardial infarction: (non-Q wave) Infarction, which is considered present in a patient having clinical, angiographic, electrocardiographic, and/or
3. Laboratory biomarker (CPK, Troponin) evidence of myocardial necrosis with an ECG showing no new Q waves

**Intent/Clarification**:

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |

2 No

February 2020: Pt has an elevated troponin, 3.96 , and is seen by cardiology with the following conclusion regarding the troponins: "Troponin elevation most likely due to demand ischemia. Low suspicion for ACS at this time given EKG appears similar to prior (12/28/2019) with no new ischemic changes and bedside echo is without obvious wall motion abnormalities component." Several days later in documentation, " elevated trop felt to be demand ischemia from GIB." Based on this, would I assign MI (Seq 3580)? If not, then would this be other cardiac event (Seq 3600)? **No to MI, No to other cardiac event. You would count the GI bleed as a POE.**

---

**SeqNo:** 3590
**Long Name**: DVT Requiring Treatment
**Short Name**: DVT
**Definition:** Indicate whether the patient has experienced a deep venous thrombosis (DVT) confirmed by Doppler study, contrast study, or other study that required treatment.

**Intent/Clarification**: Patients who have a "follow up" for a DVT, confirmed in the postoperative phase as "chronic" or dictation states "no significant interval change" should not be counted, even if the patient requires anticoagulation.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2019: Post op day 4 a long term dialysis patient required declot of the fistula with stent placement for thrombus. Would this be captured as a DVT post op event? **No, this would not be considered as a DVT. This is not an unusual occurrence for fistulas.**
February 2020: Pt was diagnosed with an axillary vein DVT. 2 weeks before the DVT was diagnosed, was on heparin gtt for PE, however, heparin gtt was now on hold due to a GI bleed. The patient was not treated for the DVT due to this. I did not assign DVT since it was not treated, is this correct? I am not sure they would have treated it specifically since the patient was already on treatment for a PE. The patient died later in the hospital stay so no post op follow up. **Do not count because it was not treated.**
February 2020: Patient has history of Antithrombin III deficiency which has been complicated with RLE DVT 5 years ago. Recently admitted with recurrent RLE DVT and bilateral PE's is s/p VATs decortication. Developed new LUE DVT postop with adjustment in anticoagulant already receiving. Would you code the new postop DVT #3590 as yes. **Decortications do not need to be captured nor require post-op events if using non-analyzed form**

---

**SeqNo:** 3600
**Long Name**: Other Cardiovascular Event

**Short Name**: OtherCV
**Definition:** Indicate whether any other CV event occurred including distal arterial embolism in the postoperative period.

**Intent/Clarification**: Cardiovascular events not listed that extend the length of stay or affected the patient's outcome.
Example: Pericardial effusion, pericarditis, etc.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

October 2018: Patient had a history of Heart Block (Wenckebach) pre-op. Post-op, the Wenckebach was associated with hypotension and narrow QRS. Patient underwent a dual chamber pacemaker. Would I capture 'other CV event' in post-operative events? **Yes.**
January 2019: Pt had a lobectomy for squamous cell lung cancer, pre-surgery with h/o atrial fib/flutter with cardioversion and return to nsr. Post of afib/flutter, bradycardia, & junctional. Junctional rhythm in the 40s required placement of permanent pacemaker, which sequence should the pacemaker be placed? **Capture this as 'Other, CV' and 'Unanticipated post-operative invasive procedure'.**
February 2020: Pt had PAF w RVR and received medical treatment as well as implantation on LINQ recorder prior to discharge. Does the LINQ recorder count as "unanticipated postop invasive procedure" and seq#3600 "Other CV Event?" **3560 yes, 3600 is a no. Unanticipated postop invasive procedure is also a yes.**

---

**SeqNo:** 3610
**Long Name**: Ileus
**Short Name**: Ileus
**Definition**: Indicate whether the patient experienced an ileus lasting > 3 days as defined by limited GI motility requiring treatment (e.g., nasogastric tube insertion for decompression, etc.) in the postoperative period.

**Intent/Clarification**:

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |

2 No

---

**SeqNo:** 3620
**Long Name**: Anastomosis Requiring Medical Treatment Only
**Short Name**: AnastoMed
**Definition**: Indicate whether the patient experienced an esophageal anastomosis leak that required medical management only (i.e., interventional radiation (IR) drainage, NPO, antibiotics, etc.) If a leak occurs on Barium Swallow only and does not require surgical intervention/drainage, (i.e., treated with NPO and delay in oral intake), then code this element as "Yes".

**Intent/Clarification**: Placement of a drain under image guidance (CT scan or ultrasound) is considered medical treatment of an anastomotic leak. SSI is considered part of the leak, it is not necessary to capture SSI also.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2019: Please clarify this for me; for patients who are s/p esophagectomies anastomotic leak was confimed, treated with antibiotic, pleural fluid is culture positive? Do I just code 3620 or both 3620 and 3730? Or is 3730 exclusive of esophageal leaks? What about 3450, do I capture the chest tube placements for esophageal leaks or that is also a part of the "medical management", just 3620? **Placement of a chest tube is not medical management for anastomotic leak. If chest tube was placed then you would indicate yes for seq. 3350 and 3380**
March 2019: Is an anastomotic leak requiring bedside opening considered a medical intervention 3620? Or, is this an unanticipated invasive procedure 3330 - Anastomotic leak following esophageal surgery 3350 - Surgical drainage and repair 3360? **This is surgical intervention, not a medical intervention. Any surgical intervention would be an unanticipated invasive procedure.**

---

**SeqNo**: 3630
**Long Name**: Dilation of the Esophagus
**Short Name**: DilationEsoph
**Definition**: Indicate whether the patient required dilation of the esophagus within the postoperative period.

**Intent/Clarification:** This includes the entire 30-day post-op period.

ParentLongName: Postoperative Events Occurred

ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2018: Patient had paraesophageal hernia repair. Post op required EGD dilation of esophagus. Are we to check in both seq. 3190 (endoscopic intervention w/I 1 month) in the hernia section and seq 3630 under post op events dilation of esophagus? Seems silly to document twice. **Yes. 3190 is follow up and 3630 is related to post op events.**

---

**SeqNo:** 3640
**Long Name**: Conduit Necrosis Requiring Surgery
**Short Name:** CondNecSurg
**Definition**: Indicate whether a conduit necrosis/failure occurred requiring surgery.

**Intent/Clarification**:

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2019: How should I differentiate choosing 3640 vs. 3340? What is the distinction? **No distinction, capture both.**

---

**SeqNo:** 3650
**Long Name**: Delayed conduit emptying requiring intervention
**Short Name**: DelayCondEmp
**Definition:** Indicate whether delayed conduit emptying required intervention such as pyloric dilation, Botox injection, and/or maintenance of NG drainage for more than seven days.

**Intent/Clarification:** 'maintenance of NG drainage for more than 7 days' as a post-op event does not apply only to patients who had some type of conduit procedure, capture this for all patients.

ParentLongName: Postoperative Events Occurred

ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

January 2019: When counting the days for maintenance of an NG, in SEQ # 3650, do you count the day of surgery as "day one" (post op day 0), or, is the day following surgery, (post op day 1), the first day. Patient had surgery on 10/31, had NG removed 11/7, so it would count as either 8 days or 7 days, respectively, depending on how the days are calculated. **Day of surgery is day 0 (not post op day 1). 11/7 would be po day 7**

---

**SeqNo:** 3660
**Long Name**: Clostridium Difficile Infection
**Short Name**: CDiff
**Definition:** Indicate whether a clostridium difficile infection developed in the postoperative period.

**Intent/Clarification:**

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3670
**Long Name**: Any Other GI Event
**Short Name**: OtherGI
**Definition:** Indicate if the patient experienced any other GI events in the postoperative period.

**Intent/Clarification:** Gastrointestinal events not listed that extended the length of stay or affected the patient's outcome.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

February 2020: The patient has dysphagia and aspiration. Speech pathology consulted and motility study done. The patient LOS is extended. Will this be a POE, Any other GI Event, Seq #3670? **No**

---

**SeqNo:** 3680
**Long Name**: Postoperative Packed Red Blood Cells
**Short Name:** PostopPRBC
**Definition:** Indicate whether the patient received packed Red Blood Cells (RBC) postoperatively.

**Intent/Clarification**: Do not count packed cells given or started in the OR during the initial operation.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:

1 Yes

2 No

October 2019: Is this just for the index surgery ? what if a patient is readmitted with in 30 days of discharge from index admission , went back to the OR , received PRBC both in the OR ( surgery #2 , procedure not included in our " major list" ) and ICU , do we abstract those transfusions? **Only post operatively prior to D/C. You should count the readmit to ICU.**

---

**SeqNo:** 3690
**Long Name**: Postoperative Packed Red Blood Cells - Units
**Short Name**: PostopPRBCUnits
**Definition:** Indicate the number of packed RBC units the patient received postoperatively prior to discharge.

**Intent/Clarification**:

ParentLongName: Postoperative Packed Red Blood Cells
ParentShortName: PostopPRBC
ParentValue: = "Yes"
ParentHarvestCodes: 1

---

**SeqNo**: 3700
**Long Name**: Urinary Tract Infection
**Short Name**: UTI
**Definition:** Indicate if the patient experienced a urinary tract infection (with positive urine cultures postoperatively) requiring treatment.

**Intent/Clarification**: **Positive urine culture and treatment required**. Do not code based on urinalysis results only.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2020: Is a positive urine culture for candida albicans (yeast) considered a positive UTI? **If it was treated you would say yes but otherwise would be no, could simply be colonization**

---

**SeqNo:** 3710
**Long Name**: Urinary retention requiring catheterization
**Short Name**: UrinRetent
**Definition:** Indicate whether the patient experienced urinary retention requiring catheterization.

**Intent/Clarification**: Patient's requiring a straight catheterization count as a catheterization and should be captured unless this condition existed prior to surgery.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

December 2018: When a patient is recatheterized post-op, even if it's an elderly man with prostate problems, we still count this as a post-op event? The intent/clarification says unless this condition existed prior to surgery. Does being on Flomax pre-op or known prostate problems count as condition existed prior to surgery? **If the patient doesn't self cath at home then this is a post op event.**

**SeqNo**: 3720
**~~Long Name:~~** ~~Discharged With Foley Catheter~~
**Short Name**: DischFoley
**Definition**: Indicate whether the patient was discharged with a Foley Catheter in place.

**Intent/Clarification**:

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3730
**Long Name**: Empyema Requiring Treatment
**Short Name**: Empyema
**Definition:** Indicate whether the patient experienced an empyema requiring treatment in the postoperative period (i.e., chest tube drainage by interventional radiology, etc.).

**Intent/Clarification:** Empyema refers to an infected pleural space requiring additional antibiotic coverage or placement of additional chest tubes/drains.

Diagnosis of empyema should be confirmed by thoracentesis or drain placement: frank pus or cloudy fluid may be aspirated from the pleural space. The fluid typically has leukocytosis, low pH (<7.2), low glucose (<60 mg/dl) high LDH, elevated protein and may contain infectious organisms.

Every empyema is an organ space infection. It is not necessary to capture both empyema and SSI. Capture empyema as it is more specific than SSI.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

**SeqNo:** 3740
**Long Name**: Surgical Site Infection
**Short Name**: SurgSiteInfect
**Definition**: Indicate the extent of surgical site infection if one was present within 30 days of surgery.

**Intent/Clarification**:

**Surgical Site Infection (SSI)**

**Superficial incisional SSI**
Must meet the following criteria:
Date of event for infection occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date) **AND** involves only skin and subcutaneous tissue of the incision **AND** patient has at least ***one*** of the following:

a. purulent drainage from the superficial incision.
b. organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST).
c. superficial incision that is deliberately opened by a surgeon, attending physician** or other designee and culture or non-culture based testing is not performed. **AND** patient has at least one of the following signs or symptoms: pain or tenderness; localized swelling; erythema; or heat.
d. diagnosis of a superficial incisional SSI by the surgeon or attending physician** or other designee.

There are two specific types of superficial incisional SSIs:

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

An infected burn wound is classified as BURN and is not an SSI.

**Deep incisional SSI**
Must meet the following criteria:
The date of event for infection occurs within 30 days after the NHSN operative procedure (where day 1 = the procedure date) **AND** involves deep soft tissues of the incision (for example, fascial and muscle layers) **AND** patient has at least ***one*** of the following:

a. purulent drainage from the deep incision.
b. a deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician** or other designee **AND** organism is identified by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST) or culture or non-culture based microbiologic testing method is not performed **AND** patient has at least ***one*** of the following signs or symptoms: fever (>38°C); localized pain or tenderness. A culture or non-culture based test that has a negative finding does not meet this criterion.
c. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.

There are two specific types of deep incisional SSIs:

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

**Organ/Space SSI**

Must meet the following criteria:
Date of event for infection occurs within 30 days after operative procedure (where day 1 = the procedure date) **AND** infection involves any part of the body deeper than the fascial/muscle layers, that is opened or manipulated during the operative procedure **AND** patient has at least ***one*** of the following:

1. purulent drainage from a drain that is placed into the organ/space(for example, closed suction drainage system, open drain, T-tube drain, CT guided drainage)
2. organisms are identified from fluid or tissue in the organ/space by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST).
3. an abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test evidence suggestive of infection. **AND** meets at least ***one*** criterion for a specific organ/space infection of Mediastinitis (see below).

   **MED-Mediastinitis**

   Mediastinitis must meet at least ***one*** of the following criteria:

   1. Patient has organism(s) identified from mediastinal tissue or fluid by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment, for example, not Active Surveillance Culture/Testing (ASC/AST)
   2. Patient has evidence of mediastinitis on gross anatomic or histopathologic exam.
   3. Patient has at least ***one*** of the following signs or symptoms: fever (>38.0°C), chest pain*, or sternal instability*

   **And at least *one* of the following:**

   . purulent drainage from mediastinal area
   . mediastinal widening on imaging test

   Patient ≤1 year of age has at least ***one*** of the following signs or symptoms: fever (>38.0°C), hypothermia (<36.0°C), apnea*, bradycardia*, or sternal instability* **And at least *one* of the following:**

   - purulent drainage from mediastinal area
   - mediastinal widening on imaging test

   * *With no other recognized cause*

The mediastinal space is the area under the sternum and in front of the vertebral column, containing the heart and its large vessels, trachea, esophagus, thymus, lymph nodes, and other structures and tissues. It is divided into anterior, middle, posterior, and superior regions.

Report mediastinitis (MED) following cardiac surgery that is accompanied by osteomyelitis as SSI-MED rather than SSI-BONE.

CDC, Surgical Site Infection (SSI) Event, January 2018,
https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscssicurrent.pdf

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | None |
| 2 | Superficial |
| 3 | Deep |
| 4 | Organ space |

---

**SeqNo:** 3750
**Long Name**: Sepsis
**Short Name**: Sepsis
**Definition:** Indicate whether the patient experienced sepsis (septicemia) requiring positive blood cultures in the postoperative period.

**Intent/Clarification**: Sepsis is defined as evidence of serious infection accompanied by a deleterious systemic response. In the time period of the first 48 postoperative or post procedural hours, the diagnosis of sepsis requires the presence of a Systemic Inflammatory Response Syndrome (SIRS) resulting from a proven infection (such as bacteremia, fungemia or urinary tract infection). In the time period after the first 48 postoperative or post procedural hours, sepsis may be diagnosed by the presence of a SIRS resulting from suspected or proven infection. During the first 48 hours, a SIRS may result from the stress associated with surgery and/or cardiopulmonary bypass. Thus, the clinical criteria for sepsis during this time period should be more stringent. A systemic inflammatory response syndrome (SIRS) is present when at least two of the following criteria are present: hypo- or hyperthermia (>38.5 or <36.0), tachycardia or bradycardia, tachypnea, leukocytosis or leukopenia, or thrombocytopenia.

Indicate whether sepsis was diagnosed within 30 days of surgery.

If a patient is septic prior to surgery, then it is pre-existing so it's not counted post-operatively.
If sepsis reoccurs post operatively and the patient has positive blood cultures, then sepsis is captured on the DCF.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |

2 No

---

**SeqNo:** 3760
**Long Name**: Other Infection Requiring IV Antibiotics
**Short Name**: OtherInfect
**Definition**: Indicate whether the patient experienced any other infection requiring IV antibiotics.

**Intent/Clarification**: If an infection is present pre-operatively and treated post-operatively, it is not a post op event.
For all patients, if an infection develops post-operatively, then it is a post op event.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3770
**Long Name**: New Central Neurological Event
**Short Name**: CentNeuroEvt
**Definition**: Indicate whether the patient experienced any of the following neurological events in the postoperative period that was not present preoperatively:

1. A central neurologic deficit persisting postoperatively for > 72 hours.
2. A postoperatively transient neurologic deficit (TIA recovery within 24 hours; RIN recovery within 72 hours).
3. New postoperative coma that persists for at least 24 hours secondary to anoxic/ischemic and/or metabolic encephalopathy, thromboembolic event or cerebral bleed.

**Intent/Clarification**:

**Stroke**
Occurs when the blood supply to part of the brain is suddenly interrupted or when a blood vessel in the brain bursts, spilling blood into the spaces surrounding brain cells or blood flow is otherwise obstructed. Brain cells die when they no longer receive oxygen and nutrients from the blood or there is sudden bleeding into or around the brain. The symptoms of a stroke persist for 24 hours or more and may include sudden numbness or weakness, especially on one side of the body; sudden confusion or trouble speaking or understanding speech; sudden trouble seeing in one or both eyes; sudden trouble with walking, dizziness, or loss of balance or coordination; or sudden severe headache with no known cause. There are two forms of stroke: *ischemic* - blockage of a blood vessel supplying the brain, and *hemorrhagic* - bleeding into or around the brain. Central events are caused by embolic or hemorrhagic events. Neurological deficits such as confusion, delirium and/or encephalopatic (anoxic or metabolic) events are not to be coded in this field.

**Transient Ischemic Attack (TIA)**
A TIA is a transient neurologic event that lasts less than 24 hours, sometimes only for a few minutes. It occurs when the blood supply to part of the brain is briefly interrupted. TIA symptoms, which usually occur suddenly, are similar to those of stroke but do not last as long. Most symptoms of a TIA disappear within an hour, although they may persist for up to 24 hours. Symptoms can include: numbness or weakness in the face, arm, or leg, especially on one side of the body; confusion or difficulty in talking or understanding speech; trouble seeing in one or both eyes; and difficulty with walking, dizziness, or loss of balance and coordination. Patients who have suffered a TIA have an increased risk of peripheral and coronary artery atherosclerosis, and an increased risk of subsequent heart attack and stroke.

**Coma**
Sometimes also called persistent vegetative state, is a profound or deep state of unconsciousness. Persistent vegetative state is not brain-death. An individual in a state of coma is alive but unable to move or respond to his or her environment.
Encephalopathy is a term for any diffuse disease of the brain that alters brain function or structure. Encephalopathy may be caused by infectious agent (bacteria, virus, or prion), metabolic or mitochondrial dysfunction, brain tumor or increased pressure in the skull, prolonged exposure to toxic elements (including solvents, drugs, radiation, paints, industrial chemicals, and certain metals), chronic progressive trauma, poor nutrition, or lack of oxygen or blood flow to the brain. The hallmark of encephalopathy is an altered mental state. Depending on the type and severity of encephalopathy, common neurological symptoms are progressive loss of memory and cognitive ability, subtle personality changes, inability to concentrate, lethargy, and progressive loss of consciousness. Other neurological symptoms may include myoclonus (involuntary twitching of a muscle or group of muscles), nystagmus (rapid, involuntary eye movement), tremor, muscle atrophy and weakness, dementia, seizures, and loss of ability to swallow or speak. Blood tests, spinal fluid examination, imaging studies, electroencephalograms, and similar diagnostic studies may be used to differentiate the various causes of encephalopathy.

**Reference:** http://www.ninds.nih.gov/disorders/stroke/stroke.htm

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3780
**Long Name**: Recurrent laryngeal nerve paresis – unexpected
**Short Name**: LaryngealNerve

**Definition:** Indicate whether the patient experienced in the postoperative period, paresis or paralysis of the recurrent laryngeal nerve that was not identified during the preoperative evaluation.

**Intent/Clarification**: The recurrent laryngeal nerve (RLN) is a branch of the vagus nerve (cranial nerve X) that supplies all the intrinsic muscles of the larynx, with the exception of the cricothyroid muscles. There are two recurrent laryngeal nerves, right and left, in the human body. The nerves emerge from the vagus nerve at the level of the arch of aorta, and then travel up the side of the trachea to the larynx. The recurrent laryngeal nerves may be injured as a result of trauma, during surgery, as a result of tumor spread, or due to other means. Injury to the recurrent laryngeal nerves can result in a weakened voice (hoarseness) or loss of voice (aphonia), aspiration or other problems in the respiratory tract.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

September 2019: Patient had a Left video-assisted upper lobectomy. 2 days Post op she was diagnosed with a left vocal fold paralysis, for which she was taken back to the OR for a Direct laryngoscopy, left vocal cord injection. Would I assign seq# 3780, Laryngeal Nerve paresis? **Yes, you would assign seq 3780**
May 2020: Patient has a thymectomy and removal of large anterior mediastinal tumor. During the surgery, tumor involvement caused the necessary removal of the laryngeal and phrenic nerve. In looking at the post-op event Seq #3780, would this occurrence be captured here, or not at all? **Seq 2420 captures intraoperative resection of phrenic nerve. It is not a post-op event for seq. 3780.**

---

**SeqNo:** 3790
**Long Name**: Delirium
**Short Name**: Delirium
**Definition:** Indicate whether the patient experienced delirium in the postoperative period marked by illusions, confusion, cerebral excitement, and having a comparatively short course.

**Intent/Clarification**: If delirium was documented, then count it as a post-op event.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: Would Delirium Tremens related to ETOH withdrawl in the post operative period be captured as yes? **Yes**

February 2019: If there is documentation of confusion or disorientation post op, is this enough to code 'yes' to the data element? **Yes.**

---

**SeqNo:** 3800
**Long Name:** Other Neurological Event
**Short Name**: OtherNeuro
**Definition:** Indicate whether the patient experienced any other neurologic event in the postoperative period.

**Intent/Clarification**:

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

February 2019: Pt had a stroke on 10/11 and we captured this as "Yes" for Seq# A 3770. On 10/26 head confirmed evidence of a second CVA. Should we capture this second event under Seq# 3800? **No, don't count it twice. Just indicate seq. 3770.**

---

**SeqNo:** 3810
**Long Name**: Renal Failure - RIFLE Criteria
**Short Name:** RenFailRIFLE
**Definition:** Indicate whether the patient had acute renal failure or worsening renal function resulting in any of the following:

1. New requirement for dialysis post-operatively
2. Increase in serum creatinine level 3.0 x greater than baseline
3. serum creatinine level ≥4 mg/dL , with an acute rise of at least 0.5 mg/dl

**Intent/Clarification:** The Acute Dialysis Quality Initiative, a multidisciplinary collaboration, defined a range of acute renal dysfunction called the RIFLE classification system. It is used to define grades of severity based on objective measurements. STS will use the highlighted values to analyze post op renal function.

**Classifications of Loss and End-stage disease are beyond the current scope of follow-up. Code yes if the patient meets the highlighted RIFLE Failure criteria or if dialysis was newly required post op.**
**Risk (R)** - Increase in serum creatinine level X 1.5 or decrease in GFR by 25%, or UO <0.5 mL/kg/h for 6 hours
**Injury (I)** - Increase in serum creatinine level X 2.0 or decrease in GFR by 50%, or UO <0.5 mL/kg/h for 12 hours
**Failure (F)** - Increase in serum creatinine level X 3.0, or serum creatinine level ≥4 mg/dL with at least a 0.5 mg/dl rise, or decrease in GFR by 75%; UO <0.3 mL/kg/h for 24 hours, or anuria for 12 hours

**Loss (L)** - Persistent ARF, complete loss of kidney function > 4 weeks
**End-stage kidney disease (E)** - Loss of kidney function >3 months

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1. | Yes |
| 2. | No |

January 2020: Progressed well post operatively. All incisions were healing. At this time, the patient was tolerating a regular diet, her drains had been removed without incident, she was ambulating independently with minimal assistance, her pain was well controlled on oral pain medication and she was determined to be appropriate for discharge to home (11/28/19). Admitted 12/3 patient underwent small bowel follow-through series. Declining kidney function, renal failure and has initiated dialysis therapy...how should we code 3810? Should these complications be captured on the Thoracic surgery?**The date of Renal Failure diagnosis via lab values or initiating dialysis must be within 30 days of surgery to count as a (seq 3810) POE**

---

**SeqNo:** 3820
**Long Name**: Chylothorax Requiring Medical Intervention
**Short Name:** ChyloMed
**Definition:** Indicate whether the patient experienced a chylothorax in the postoperative period that required medical intervention (i.e., NPO, TPN, etc.).

**Intent/Clarification**: Chylothorax is identified by the milky appearance of pleural fluid, which, if analyzed would likely have triglyceride levels >110 mg/dl. If surgical intervention was done (ligation of thoracic duct) then do not choose this element. Select Seq. 3390 and 3400.

If surgical intervention was done (ligation of thoracic duct) then do not choose this element.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3830
**Long Name**: Other events requiring OR with general anesthesia
**Short Name:** OtherSurg
**Definition:** Indicate whether the patient experienced any other surgical events in the **post-operative period** requiring a procedure with general anesthesia.

**Intent/Clarification:**

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

April 2019: Post lobectomy patient transferred to stretcher and dumped 300cc blood. Pt placed back on OR table and explored for bleeding. Patient never left room. Would I capture that here or would it remain a part of the initial procedure because patient never left the OR. **It is part of the procedure as pt never left the OR.**
April 2020: Based on the manual Tracheostomy placed post-operatively would be coded under Seq.3330, 3340 "other" and 3530 do all patients who receive a trach post-op also get classified on Seq.3830? I thought 3830 was captured "Yes" only if Other events requiring OR w/gen anesthesia occurred, if it was already captured on 3330 then it is not another procedure on top of that correct? **Capture 3330, 3340 and 3530 and 3830. See FAQ from February 2019 under Seq# 3330.**

---

**SeqNo:** 3840
**Long Name**: Unexpected Admission to ICU
**Short Name**: UnexpectAdmitICU
**Definition:** Indicate whether there was an unplanned **transfer** of the patient to the ICU due to deterioration in the condition of the patient.

**Intent/Clarification**: During the patient's initial hospital stay (index procedure).

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

## Discharge

**SeqNo:** 3860
**Long Name**: Patient Is Still In Hospital
**Short Name**: StillInHosp
**Definition:** Indicate if, at the time of data submission, the patient remains an inpatient in the hospital.

**Intent/Clarification**:

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3870
**Long Name**: Discharge Date
**Short Name**: DischDt
**Definition:** Indicate the date the patient was discharged from the hospital (acute care). If the patient expired in the hospital, the discharge date is the date of death.

**Intent/Clarification:** Do not include transfers to other services, such as renal care unit. If the patient is discharged (given a new account number) to hospice care but remains in the same bed/unit, the discharge date is that date. If the patient is discharged (given a new account number) to a psychiatric or rehab unit, even if located in the same building, the discharge date is that date.

ParentLongName: Patient Is Still In Hospital
ParentShortName: StillInHosp
ParentValue: = "No"
ParentHarvestCodes: 2

---

**SeqNo:** 3880
**Long Name:** Discharge Status
**Short Name:** MtDCStat
**Definition:** Indicate whether the patient was alive or dead at discharge from the hospitalization in which the primary surgery procedure occurred.

**Intent/Clarification:** Indicate if the patient was “alive” or “dead” at the time of discharge. The intent is to capture all patient deaths occurring within the acute care hospitalization following surgery. This includes patients transferred to another acute care facility. Do not capture patients discharged to hospice, rehab, SNF, psych or long term care.

Examples:
A patient undergoes a wedge resection at hospital A and five days later is transferred to hospital B for a lobectomy. The patient dies 40 days later. Both institutions should code "dead" since this patient died during the acute care hospitalization. It is a continuation of the acute care stay for Hospital A.

A patient has a major procedure with surgeon #1 and is discharged alive, but re-admitted within 30 days and has another major procedure with surgeon #2 which is a complication of the prior procedure, then dies within the 2nd admission. Which procedure and surgeon does the mortality get attributed to?
**The mortality goes to both surgeons. The complication gets attributed to the first case; the readmission and reoperation are attributed to the first case and the death is attributed to the first case in the 30 day post-operative status (death). The death also goes on the second case in status at discharge (death).**

**To avoid double counting mortality, only one operation per admission is included in the calculation of participant mortality rates. Patients were classified according to the first chronological primary procedure during the hospital admission. Each hospitalization contributes one observation to the denominator of the mortality calculation and never contributes more than one observation to the numerator.**

ParentLongName: Patient Is Still In Hospital
ParentShortName: StillInHosp
ParentValue: = "No"
ParentHarvestCodes: 2

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Alive |
| 2 | Dead |

---

**SeqNo:** 3890
**Long Name**: Discharge Location
**Short Name**: DisLoctn
**Definition:** Indicate the location to where the patient was discharged.

**Intent/Clarification:** If the patient resided in a nursing home before surgery and is discharged to a nursing home, code as "Nursing Home" even though it is considered the patient's "home".

'Other' can include a Guest House (for transplant patients who live too far from the transplant hospital) or a Correctional Facility.

An "assisted living facility" that was the patient's baseline prior to admission is captured as home.

ParentLongName: Discharge Status
ParentShortName: MtDCStat

ParentValue: = "Alive"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Home |
| 2 | Extended Care/Transitional Care Unit/Rehab |
| 3 | Other Hospital |
| 4 | Nursing Home |
| 5 | Hospice |
| 777 | Other |

---

**SeqNo:** 3900
**Long Name**: Discharged With Chest Tube
**Short Name**: CTubeDis
**Definition:** Indicate whether the patient was discharged with a chest tube for persistent air leak or to drain a postoperative effusion.

**Intent/Clarification:** Capture this for all patients discharged after any procedure with any type of chest tube for a persistent air leak or postoperative effusion

ParentLongName: Discharge Status
ParentShortName: MtDCStat
ParentValue: = "Alive"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

---

**SeqNo:** 3910
**Long Name**: Discharged with home O2 (new; not using O2 pre-op)
**Short Name**: DischHomeO2
**Definition**: Indicate if the patient was discharged home with an order to use oxygen at home. If the Patient used oxygen at home prior to surgery check "no" to this field.

**Intent/Clarification**:

ParentLongName: Discharge Status
ParentShortName: MtDCStat

ParentValue: = "Alive"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |

November 2018: If the patient is discharged on home oxygen after surgery, should we capture in both these places. **Only indicate in the home with O2.**
June 2019: The patient is not discharged with home O2, but begins complaining of SOB and DOE with sats <=88% with exertion. One day after discharge the patient presents to the ED where home O2 is initiated. How do I capture this event? It is within the 30-day window for POE post-op. Would I capture it as Other Pulmonary Event? I don't think I can capture this as a discharge on home O2? **Since the patient was not discharged home on home O2 select 'No' to D/C'd on home O2. Select post operative event of 'Other'.**
July 2019: Does this data element apply only to the index surgery hospital admission or the entire 30 day postoperative period? Patient was discharged to TCU post segmentectomy, not on O2. Went home from TCU, then readmitted for SOB within 30 days of surgery. Discharged home after 3 days on 2L O2. Should I code YES for 3910 if home O2 was prescribed following readmission? **This is only related to the index admission**.

---

**SeqNo:** 3920
**Long Name:** On Oxygen at 30 Days PostOp
**Short Name**: OnOxygen30DayPOp
**Definition:** Indicate if the patient is using home oxygen at 30 days post operatively.

**Intent/Clarification:**

ParentLongName: Discharged with home O2 (new; not using O2 pre-op)
ParentShortName: DischHomeO2
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Patient died within 30 days postop |
| 4 | Unknown |

December 2018: If a follow-up note states that the patient is on room air but uses supplemental oxygen, do we code this as "Yes?" **Yes**

**SeqNo:** 3930
**Long Name:** Readmission within 30 days of Discharge
**Short Name**: Readm30Dis
**Definition:** Indicate whether patient was readmitted to any hospital within 30 days of discharge.

**Intent/Clarification:** Code yes for inpatient admissions to an acute care facility. Include 'all cause' readmissions, planned or unplanned. Do not capture ED or outpatient visits (see below) or admission to a skilled facility or nursing home.

- It is understood that some readmissions are planned; these are still counted as readmissions.
- Readmission does not need to be at same institution as surgical procedure.
- Obtain information as close to 30 days from date of discharge as possible.
- Do not include Emergency Dept. visits or observation (no matter how long) unless the ED visits lead to a hospital admission.

The intent is to capture inpatient readmissions to acute care and primary care institutions only. If a patient is readmitted to an inpatient rehabilitation hospital, code "No". On occasion a patient is readmitted twice within the 30 day time frame from the date of the procedure. This is a Yes/No question, and does not ask how many times readmitted. Any time the patient is readmitted to a hospital ≤ 30 days from the date of discharge regardless if the readmission was planned or unplanned, related or unrelated. You code the first readmission only.
**Example # 1:** A patient is re-admitted to the hospital after a lobectomy for reasons that were planned (ex, colon resection or cholecystectomy). Code these readmissions "Yes".
**Example # 2:** A patient is readmitted as an observation patient, (not an inpatient) and was in the hospital for 3 days and had an insertion of a Pleurx catheter: Code this "NO" as a readmission.
**Example # 3:** A patient is transferred to your facility from a hospital that does not do thoracic surgery. Surgery is performed and once stabilized the patient is transferred back to the original hospital for the conclusion of a six-week course of IV antibiotics: Code "No" for a readmission, this is an extension of the acute care hospital stay.

ParentLongName: Discharge Status
ParentShortName: MtDCStat
ParentValue: = "Alive"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Unknown |

December 2018: Thoracic surgery at our facility. Transferred to another acute care facility on 11/30/2018 for lung transplant evaluation (service not provided at our facility) but was not a candidate and transferred back to us on 12/6/2018. Please advise if the following dates are correct. Discharge date for the index surgery is 11/30/2018 as the transfer to the other acute care facility created a new account number. Readmission at 30 days is "no" as he remained in an extension of acute care hospital stay the entire time. **This is not a readmission as the patient was not discharged to home or extended care facility.**

February 2020: Patient returns to the hospital within 30 days. Thoracic surgeon places order for Observation status. Another MD in conjunction with our Utilization Review team makes the patient Inpatient status. Thoracic surgeon places an order to put patient back into Observation status but status is not changed in the system and is billed as an Inpatient admission. Does the intent of the surgeon override the Utilization Review order? **It is based on actual patient status, if they were IP then it was a readmission.**

---

**SeqNo:** 3940
**Long Name**: Readmission Related To Operative Procedure
**Short Name**: Readm30DisRel
**Definition:** Indicate whether the readmission was related to this operation.

**Intent/Clarification:** The intent is to differentiate between readmissions related to the operation and unrelated readmissions.

ParentLongName: Readmission within 30 days of Discharge
ParentShortName: Readm30Dis
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Unknown |

---

**SeqNo:** 3950
**Long Name**: Status 30 Days after Surgery
**Short Name**: Mt30Stat
**Definition**: Indicate whether the patient was alive or dead at 30 days post-surgery (whether in the hospital or not).
**Intent/Clarification**: Use the 30th calendar date after the Date of Surgery to determine mortality status. This is your 30-day post-surgery death, regardless of location.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Alive |
| 2 | Dead |
| 3 | Unknown |

August 2019: Original plan for patient was surgery to treat Tracheobronchomalacia. Procedure did not proceed due to 2 lymph nodes with adenocarcinoma on frozen section.
(#1) Confirming there isn't a way to note deviation from original plan for surgery? There was no surgical

approach conversion.

(#2) Patient was coded as 32601 for diagnostic thoracoscopy and +32674 for Mediastinal Lymph Node Dissection. Filled out Seq# 3950 as a mortality prior to 30 days but confirming this case will not be analyzed because primary procedure was 32601 even though +32674 was completed correct? **Deviations from the original plan are not captured in the database.You don't need to enter this case since it is a non-analyzed case. +32674 is an add-on procedure that must be accompanied by a lung resection (usually lobectomy/pneumonectomy) for cancer. If you do chose to capture this, you should use 32606 VAT biopsy of mediastinal space.**

---

## Follow Up

**SeqNo:** 3960
**Long Name**: Date of Last Follow-Up
**Short Name**: LFUDate
**Definition**: Indicate the date on which the last follow-up was made. If patient dies in the hospital, this value will be the same as the date of death. If no follow-up is made after patient is discharged, this value will be the same as the discharge date.

**Intent/Clarification**: This field is for those patients diagnosed and surgically treated for Lung CA and Esophageal CA. Need to track patients for five (5) years from the date of the original surgery. Work with your cancer registry people for assistance with this information. Any contact with any provider is acceptable.

Update at least once per year. Does not need to be exactly one year; most recent visit closest to one year.

February 2020: I read in the data manual, "Does not need to be exactly one year; most recent visit closest to one year." I am removing dates of follow-ups entered on cases that have not met the one year mark post the surgical date. Thus, there is missing data. Is this correct? **No need to remove dates. The "once per year" is just a suggestion. Update as often as you can with the date of last known follow up. This might be quarterly, every six months or once a year. There is no specific time frame requirement.**

---

**SeqNo:** 3970
**Long Name**: Mortality Status at Last Follow-Up
**Short Name**: LFUMortStat
**Definition**: Indicate the mortality status of the patient at the time of the last follow-up. If no follow-up is made after patient is discharged, this value will be the same as the Mortality Status at Hospital Discharge.

**Intent/Clarification**:

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Alive |
| 2 | Dead |

---

**SeqNo:** 3980
**Long Name: Mortality Date**
**Short** Name: MortDate
**Definition:** Indicate the patient's date of death (even if after discharge).

**Intent/Clarification**:

---

## Quality Measures

**SeqNo:** 3990
**Long Name**: IV antibiotics ordered to be given within 1 hour before
**Short Name**: IVAntibioOrdered
**Definition:** Indicate whether an order for IV antibiotics to be given within one hour of the skin incision was given.

**Intent/Clarification:** Indicate whether prophylactic antibiotics were ordered to be given within one hour of surgical incision or start of procedure if no incision required.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not indicated for procedure |

July 2019: This measure asks if the pre-op antibiotic was ordered to be given within one hour of incision. The pre-op antibiotics at our facility are ordered as on-call. Is that sufficient to pass this measure? **The definition says the order must indicate the antibiotics are to be given within one hour of start/incision. This is an NQF measure. Therefore, 'on call' does not meet the definition.**
February 2020: Order reads: Cefuroxime IVPB 1.5 Gm IVPB Once, Indication: Pre-procedural Prophylaxis, Stop after 1 Doses -- given in OR Infuse at 100 ml/hr Would this qualify for ordered within hr and seq 4020 abx discontinued? **Yes and yes**

---

**SeqNo:** 4000
**Long Name:** IV antibiotics given within 1 hour before incision
**Short Name**: IVAntibioGiven
**Definition**: Indicate whether IV antibiotics were given within one hour of the skin incision.

**Intent/Clarification**: Indicate whether prophylactic antibiotics were administered within one hour of surgical incision or start of procedure if no incision required (two hours if receiving Vancomycin or fluoroquinolone).

The surgical incision time is the time of the first incision, regardless of location.

**Example #1:** Is it considered an antibiotic timing complication if a 30 minute antibiotic infusion is hung 1 hour and 14 minutes prior to procedure start time? More than half the antibiotics will be running after the 1 hour pre – procedure mark. **The antibiotic start time must be within 1 hour of the incision. The measure is not met in this case. The goal is to have blood and tissue levels of antibiotics maximized at the time of incision.**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not indicated for procedure |

February 2020: We sometimes see the following statement in the surgeon's operative note and are wondering if we can accept it for this field when we have an appropriate pre-op antibiotic order but no other documentation that it was given: "The patient got one dose of antibiotics within 20 minutes of incision." **No. Look on anesthesia report for time antibiotic was given. Take dose time from the same place every time.**

---

**SeqNo:** 4010
**Long Name:** Cephalosporin Antibiotic Ordered
**Short Name**: CephalAntiOrdered
**Definition:** Indicate whether an order for first or second-generation cephalosporin antibiotic or appropriate therapeutic substitute (in case of allergy) for prophylaxis was given.

**Intent/Clarification:** Examples of other abx may include Vancomycin, Clindamycin

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not indicated for procedure |
| 4 | Documented allergy or indication for therapeutic substitution |

February 2020: One of my surgeons uses cleocin frequently instead of a Cefazolin, without any allergy or other indication documented. What should I pick for this sequence? **Choose No**

---

**SeqNo:** 4020
**Long Name**: Prophylactic Antibiotic Discontinuation Ordered within 24 hours
**Short Name**: AntibioticDiscOrdered
**Definition**: Indicate whether an order to discontinue prophylactic antibiotics within 24 hours of the procedure was given.

**Intent/Clarification:** Determining the timeframe (within 24 hours) begins at the "surgical end time" – the time the patient leaves the operating room.

**Example #1:** How do you code antibiotic discontinue time when the patient returns to the OR in the acute phase (within 24 hours)? **The 24 hour interval begins after the last OR exit time.**
**Example #2:** The patient is allergic to penicillin and is given vancomycin appropriately before and after surgery. Standing orders are followed to dc the vancomycin but the surgeon restarts it to treat endocarditis. Do I code yes for discontinued? **- Yes, the prophylactic antibiotic was discontinued. If it was continued without stopping you would mark 'no, due to documented infection'.**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 4 | Not indicated for procedure |
| 3 | No, due to documented infection |

July 2019: The post -operative antibiotics at our facility are ordered to be discontinued within 24 hours of surgery. They specifically state no dose of antibiotic should be given after the 24 hour deadline even if the patient has not received all of the anticipated doses. If a nurse gives a dose after the 24 hour post-op time, would we still pass this measure since the antibiotic was ordered to be discontinued within 24 hours? **Yes, this sequence is specific to the order itself, not what was given.**

Janaury 2020: For patient who do not receive or have antibiotic ordered post op, should this be coded yes or no? No order to start or stop antibiotics. **Code 'No'**

---

**SeqNo:** 4030
**Long Name**: Smoking Cessation Counseling
**Short Name**: SmokCoun
**Definition:** Indicate whether the patient received cigarette smoking cessation counseling (must include oral counseling, written material offered to patient, and/or offer of referral to smoking cessation program).

**Intent/Clarification**: Indicate whether, prior to discharge from the acute care facility, the patient received smoking cessation counseling. Please select "Nonsmoker" for those patients with no prior history of smoking or remote (more than 1 year) history.

**This is a Joint Commission endpoint and it must be documented that either literature and/or counseling was offered and provided to the patient.**

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Patient refused |
| 4 | Nonsmoker |

February 2020: Patient quit smoking less than 1 year prior to surgery. I'm unsure if the response should be non smoker or should I look for smoking cessation counseling.**Has to have documented counseling if smoked within the prior year.**

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**SeqNo:** 4040
**Long Name**: DVT Prophylaxis Measures
**Short Name:** DVTProphylaxis
**Definition:** Indicate whether prophylactic measures (TED stockings, pneumatic compression devices and/or subcutaneous heparin or low molecular weight heparin) were taken to prevent DVT. Select "Not applicable" if not indicated, or due to documented DVT or contraindications to all methods of prophylaxis.

**Intent/Clarification:** Deep vein thrombosis (DVT) is the formation of a blood clot in the deep veins within the body, such as in the leg or pelvis. This kind of thrombosis can occur after surgery and may cause redness, pain and swelling. DVT prophylactic measures should be taken in the pre-operative setting and/or in the operative suite prior to incision.

Harvest Codes:

| Code: | Value: |
|---|---|
| 1 | Yes |
| 2 | No |
| 3 | Not applicable |

January 2020: The definition specifies use of heparin, lovenox, compression devices, however the "intent" section states these measures should be in preop and/or the OR prior to incision. Please clarify if this is the only timeline for these measures or if the post operative period is also included. **Pre-op is the intent.**

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**SeqNo:** 4070
**Long Name**: Temporary Date Field
**Short Name**: TempDt
**Definition:** **To further understand the impact of Covid-19 on surgical patients, STS will begin collecting the date of positive PCR testing for Covid-19 patients with surgery dates starting May 1, 2020. If there is more than one positive test date, collect the date that is closest to the OR date. Positive antibody testing is not captured in this field. Sites have the option to retroactively collect this field back to January 1 if they choose**

**to do so. To achieve this, the temporary field (TempDt) will be utilized for patients who have a confirmed Covid-19 diagnosis through PCR testing.**

**Intent/Clarification: Use only as directed by STS, do not add custom field here.**

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**SeqNo:** 4080
**Long Name**: Temporary Coded Field
**Short Name**: TempCode

**Definition: This field will be used to collect data on Covid-19. Please complete on patients entered into the database starting April 1, 2020. Sites have the option to retroactively collect this field back to January 1 if they choose to do so. Did the patient have a laboratory confirmed diagnosis of Covid-19?**

- **No (Harvest code 10)**
- **Yes, prior to hospitalization for this surgery (Harvest Code 11)**
- **Yes, in hospital prior to surgery (Harvest Code 12)**
- **Yes, in hospital after surgery (Harvest Code 13)**
- **Yes, after discharge within 30 days of surgery (Harvest Code 14)**

**Intent/Clarification: Use only as directed by STS, do not add custom field here.**

May 2020: **There are many tests for different types of coronavirus. The STS is only collecting data on the one that causes COVID 19 which is SARS-CoV-2.**

May 2020: **Code No for patients who are not tested and for patients who are tested for Covid-19 and that test is negative**

May 2020: Can I abstract a patient who is assumed to be Covid-19+ but was not tested**? No, only code yes for a patient who has been confirmed to have Covid-19 through laboratory testing.**

May 2020: **If the patient was tested within 30 days of surgery but the result comes back after 30 days, still code this as within 30 days.**

May 2020: During a follow up phone call, a patient says that they tested positive for COVID-19. Shall I take their word, or do I need an official result? **Code Yes, after discharge within 30 days of surgery for patients who self-report testing positive for COVID-19 within 30 days of surgery.**

May 2020: For Harvest Code 10, does this only apply to the pre-op status? How do we collect post-op hospitalized patients who test negative? **Harvest Code 10 - NO applies to any of the above timeframe's pre-op, during hospitalization, and post-op. For example, if the patient tested negative or was not tested pre-op, then code as NO. If the patient is then tested and is negative or not tested during the hospitalization, code NO. If the patient is discharged and is found to be COVID 19 positive within 30 days of surgery, remove code 10 and code Yes to Code 13.**

May 2020: For harvest Code 11 - Yes, prior to hospitalization for this surgery. Can you specify the time frame? **There is no timeframe for harvest Code 11. Capture any COVID 19 positive test pre-op and enter the date in SEQ 4070 TempDt.**

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# Resources

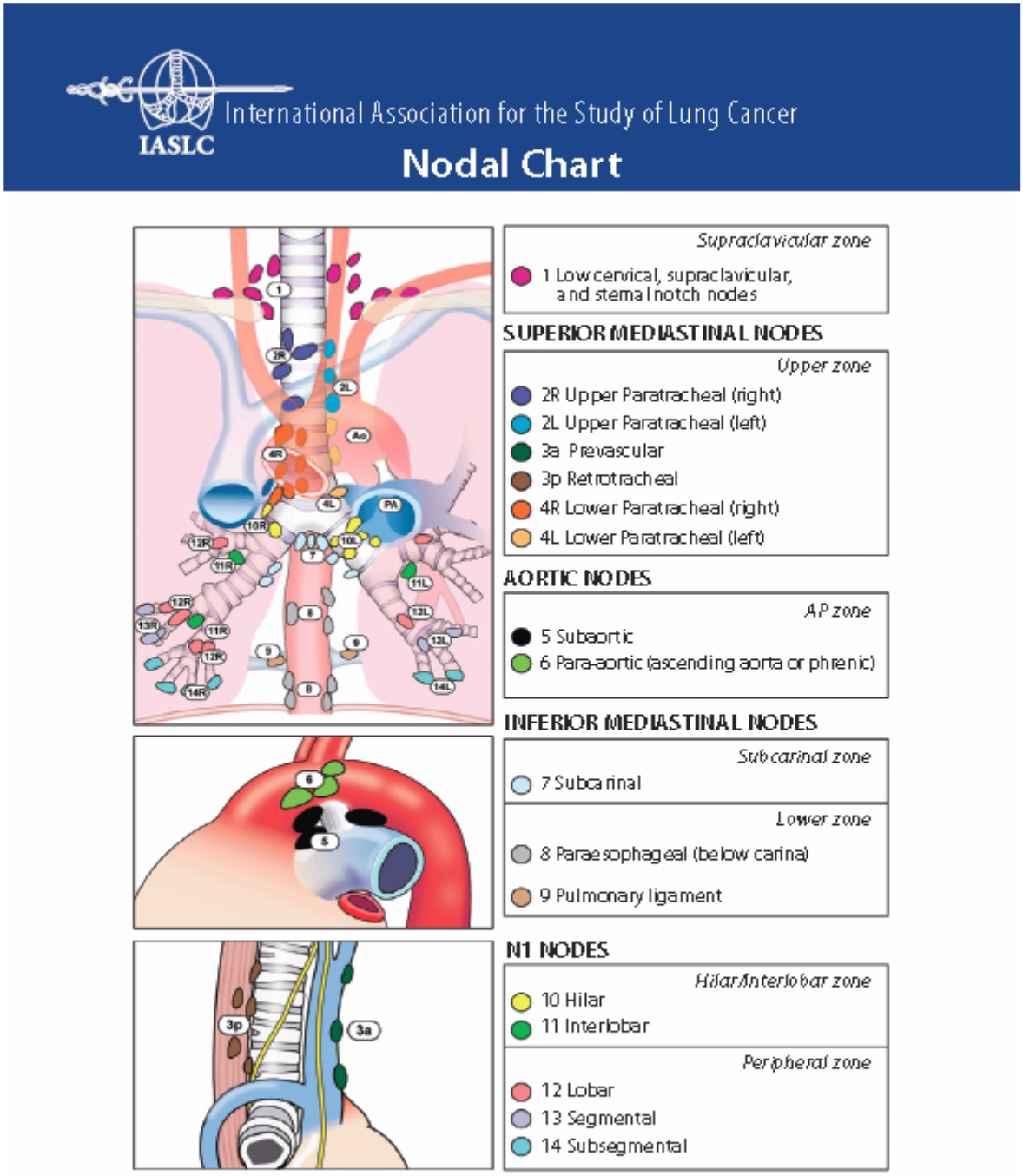
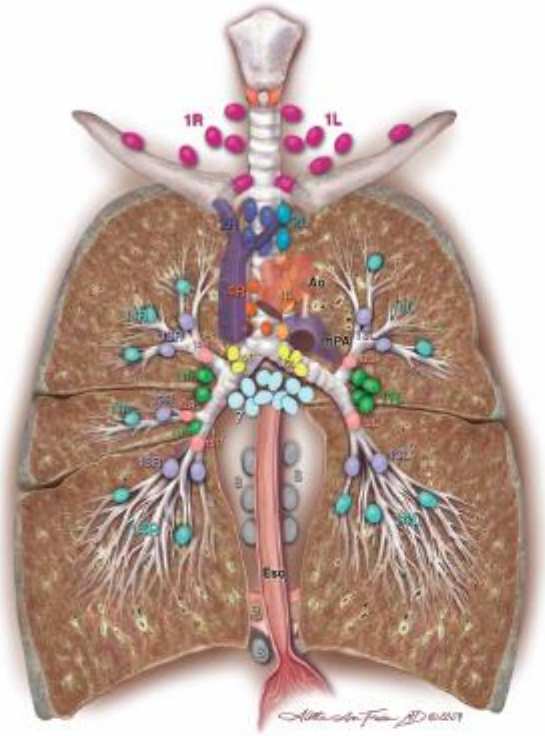
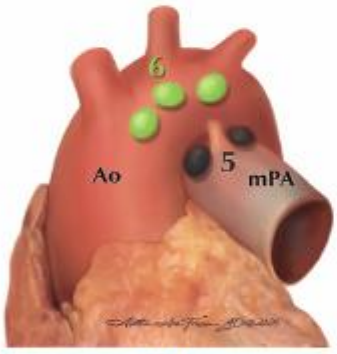
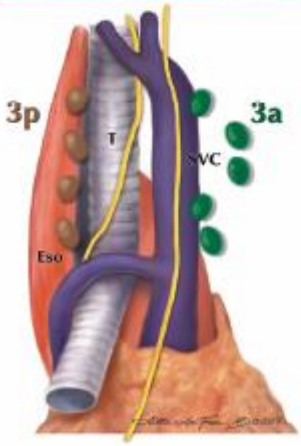



Figure. International Association for the Study of Lung Cancer Nodal Chart with Stations and Zones. Permission must be requested and granted before photocopying or reproducing this material for distribution. Copyright ©2009 Memorial Sloan-Kettering Cancer Center.




*Supraclavicular zone*
- 1 Low cervical, supraclavicular, and sternal notch nodes

**SUPERIOR MEDIASTINAL NODES**

*Upper zone*
- 2R Upper Paratracheal (right)
- 2L Upper Paratracheal (left)
- 3a Prevascular
- 3p Retrotracheal
- 4R Lower Paratracheal (right)
- 4L Lower Paratracheal (left)

**AORTIC NODES**

*AP zone*
- 5 Subaortic
- 6 Para-aortic (ascending aorta or phrenic)

**INFERIOR MEDIASTINAL NODES**

*Subcarinal zone*
- 7 Subcarinal

*Lower zone*
- 8 Paraesophageal (below carina)
- 9 Pulmonary ligament

**N1 NODES**

*Hilar/Interlobar zone*
- 10 Hilar
- 11 Interlobar

*Peripheral zone*
- 12 Lobar
- 13 Segmental
- 14 Subsegmental

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