# General Thoracic Surgery Database
## V2.41 Training Manual
### September 24, 2018

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Case Examples

Case #1:
Patient has nodule on CT and is also worked up with a PET. Surgeon thinks it could be cancer so lung resection is completed and path comes back as lung cancer. Enter as lung cancer case and record clinical and path staging.

Case #2:
Same as above but path comes back as hamartoma. Enter as lung cancer case, but select “No cancer found, benign tumor” for seq# 1910. Clinical staging gets recorded but no path staging.

Case #3
Patient worked up for presumed lung cancer. Taken to OR for wedge followed by lobectomy if frozen section shows cancer. Frozen section comes back as granuloma. Surgery ends there. Enter as suspected lung cancer, select “No cancer found, benign tumor” for Seq. 1910. Clinical staging gets recorded.

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, wedge resection of abscess is done and then completion lobectomy because the lung was not salvageable. Never suspected cancer. Does not fall into any of the other analyzable categories (Thymus, GERD/Hernia, Tracheal resection, etc.). Do not need to enter case. If collected case will not be analyzed.

Case #5
Patient presents with primary pneumothorax. Patient taken to OR for excision of bullae. Do not need to enter case. If collected case will not be analyzed.

Case #6
Patient with history of breast cancer and previous met to lung, removed via wedge. Presenting with new nodule and surgeon assumes it’s another met. Taken to OR for therapeutic wedge resection, but final path comes back as early stage primary lung cancer. This was not a resection for “known or presumed lung cancer”. In this situation it is worth discussing with the surgeon. If the surgeon never suspected lung cancer then it would not be entered. However, if the surgeon documented possible primary lung cancer or benign etiology this case would be coded.

Case #7
Patient presents with empyema and undergoes decortication. Do not need to enter case

Demographics

<table>
<thead>
<tr>
<th>SeqNo:</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Name:</td>
<td>Operations Table Record Identifier</td>
</tr>
</tbody>
</table>
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 Participant ID 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 not 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 not 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 not 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 not 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 not 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.

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<td>Trial 5</td>
</tr>
<tr>
<td>7</td>
<td>Trial 6</td>
</tr>
</tbody>
</table>

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 not 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 not 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:

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<td>Male</td>
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<tr>
<td>2</td>
<td>Female</td>
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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:**

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<td>2</td>
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</tr>
<tr>
<td>3</td>
<td>Patient declined to disclose</td>
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**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:**

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</tr>
</tbody>
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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."


**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."

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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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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.


**Intent/Clarification:**

Harvest Codes:

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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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.


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:

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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

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]

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</tr>
<tr>
<td>2</td>
<td>No</td>
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</table>

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:

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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not documented</td>
</tr>
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</table>

## 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:

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<tr>
<td>2</td>
<td>Outpatient / Observation</td>
</tr>
</tbody>
</table>

**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:

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<tbody>
<tr>
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<td>None / self</td>
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<td>Medicare</td>
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<td>Medicaid</td>
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<tr>
<td>4</td>
<td>Military Health</td>
</tr>
<tr>
<td>5</td>
<td>Indian Health Service</td>
</tr>
<tr>
<td>6</td>
<td>Correctional Facility</td>
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<tr>
<td>7</td>
<td>State Specific Plan</td>
</tr>
<tr>
<td>8</td>
<td>Other Government Insurance</td>
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<tr>
<td>9</td>
<td>Commercial Health Insurance</td>
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<tr>
<td>10</td>
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</tr>
<tr>
<td></td>
<td>Organization</td>
</tr>
<tr>
<td>11</td>
<td>Non-U.S. Plan</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<th>Code</th>
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<td>None / self</td>
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<td>2</td>
<td>Medicare</td>
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<td>Correctional Facility</td>
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<td>7</td>
<td>State Specific Plan</td>
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</tbody>
</table>
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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".

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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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](https://nppes.cms.hhs.gov/NPPES/NPIRegistryHome.do)

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.

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:**

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
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).

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.
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:

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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.

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:

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</table>
September 2018: This version of the training manual states we need to look back for 12 months to see if the patient had signs of symptomatic CHF. In my opinion, 12 months is unreasonable. 2.3 only asks us to go back two weeks prior to admission. Also, the latest specs dated Jan 2018 state 2 weeks. Are the specs going to be updated to match the training manual? It is now the past year.

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.

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**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:**

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**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.
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**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.

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.

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**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
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**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

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**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:

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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

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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.

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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.

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**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)**

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</table>
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:

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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:

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<td>Known disease, no events</td>
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<td>Transient Ischemic Attack – TIA – reversible</td>
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<tr>
<td>3</td>
<td>Cerebrovascular Accident – CVA – irreversible</td>
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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:

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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 being treated. Such as headache, loss of sensation or loss of function due to brain involvement. Symptoms should be present within a month of the surgical assessment.

Intent/Clarification: Indicate if neurologic symptoms are present for those patients receiving treatment for cancer. 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:

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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:

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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:

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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.

Intent/Clarification:

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

Harvest Codes and Value Definitions:

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<td>Diet only</td>
<td>Treatment with diet only</td>
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<tr>
<td>8</td>
<td>Oral</td>
<td>Treatment with oral agent (includes oral agent with or without diet treatment)</td>
</tr>
<tr>
<td>4</td>
<td>Insulin</td>
<td>Insulin treatment (includes any combination with insulin)</td>
</tr>
<tr>
<td>6</td>
<td>Other subcutaneous medication</td>
<td>Other subcutaneous medications (such as GLP-1 anagonists;Byetta,Bydureon,Victoza,Symlin)</td>
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<tr>
<td>5</td>
<td>Other</td>
<td>Other adjunctive treatment, non-oral/insulin/diet</td>
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</table>
**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.  

**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. 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  

August 2018: Liver dysfunction should be based on physician documentation and documentation of hepatitis B, hepatitis C, cirrhosis, portal hypertension, esophageal varices, chronic alcohol abuse or congestive hepatopathy. Not all ETOH abusers have liver dysfunction.  

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**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:

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<td>No</td>
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</tbody>
</table>

**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:**

Harvest Codes:

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<thead>
<tr>
<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**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:**

Do not include methotrexate given for arthritis. Include all forms of chemotherapy. Not limited to IV administered agents.

Harvest Codes:

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<th>Code</th>
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<tbody>
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</tbody>
</table>
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.
the patient for any surgical evaluation, if the intent of the radiation oncologist was to "shrink the tumor" prior to surgical intervention.

**Intent/Clarification:**
Radiation therapy causes changes to the tissues which may increase difficulty and or risk in subsequent surgeries. Breast cancer radiation is excluded.

Harvest Codes:

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<th>Value</th>
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<tbody>
<tr>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Same disease, &lt;= 6 months</td>
</tr>
<tr>
<td>2</td>
<td>Same disease, &gt; 6 months</td>
</tr>
<tr>
<td>3</td>
<td>Unrelated disease, &lt;= 6 months</td>
</tr>
<tr>
<td>4</td>
<td>Unrelated disease, &gt; 6 months</td>
</tr>
</tbody>
</table>

**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. Thoracotomy, 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:
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.

If the thoracic surgeon is doing a trans-abdominal approach, and the patient has had prior abdominal surgery, this should be coded as “yes”.

Harvest Codes:

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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tbody>
<tr>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<thead>
<tr>
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<tbody>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tbody>
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<td></td>
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</tr>
<tr>
<td>SeqNo: 790</td>
<td>Long Name: Prior Cardiothoracic Surgery - Pulmonary Resection</td>
</tr>
<tr>
<td>Short Name: PriorPulmRes</td>
<td></td>
</tr>
<tr>
<td>Definition: Indicate if the patient has had a prior pulmonary resection.</td>
<td></td>
</tr>
</tbody>
</table>

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

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

**Harvest Codes:**

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<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

| 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:**

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<thead>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Right</td>
</tr>
<tr>
<td>2</td>
<td>Left</td>
</tr>
</tbody>
</table>
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:

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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

<table>
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</thead>
<tbody>
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<td>Right</td>
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<td>2</td>
<td>Left</td>
</tr>
<tr>
<td>3</td>
<td>Bilateral</td>
</tr>
</tbody>
</table>
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:

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

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

Harvest Codes:

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<thead>
<tr>
<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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.

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:

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<tr>
<th>Code</th>
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<tbody>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tr>
<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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 should not be included here.

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

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

**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:

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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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

**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  

Non-analyzed procedures are highlighted in blue on the DCF. Lung resections that are not highlighted will be analyzed, should be collected on the Analyzed Procedure DCF, and should have PFTs. If done for lung cancer, staging should be documented.

A lobectomy is a major lung resection. Major lung resections without PFT results will not be analyzed.

Example:  
The PFT field 920 should be answered “Not a major lung resection” for cases that are highlighted as “non-analyzed” cases. Lung resections that are listed the Analyzed Procedure section on the DCF should have PFTs. A therapeutic wedge is an analyzed procedure, even though not a major anatomic resection, and PFTs are expected.

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

**Harvest Codes:**

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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not Major Lung Resection</td>
</tr>
<tr>
<td>2</td>
<td>Never smoked, no lung disease</td>
</tr>
</tbody>
</table>
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:

<table>
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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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

\[
\frac{2.65}{3.80} = 69.7 \text{ (actual divided by predicted)}
\]

**ParentLongName:** Forced Expiratory Volume Test Performed  
**ParentShortName:** FEV  
**ParentValue:** "Yes"  
**ParentHarvestCodes:** 1

---

**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 was 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 values obtained more than 12 months prior to surgery.

**ParentLongName:** Pulmonary Function Tests Performed  
**ParentShortName:** PFT  
**ParentValue:** "Yes"  
**ParentHarvestCodes:** 1
Harvest Codes:

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<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

September 2018: “Dsb” is “single-breath carbon monoxide diffusing capacity” and can be used if DCLO is not documented.

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

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:

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<tbody>
<tr>
<td>1</td>
<td>Never smoked</td>
</tr>
<tr>
<td>2</td>
<td>Past smoker (stopped more than 30 days prior to operation)</td>
</tr>
<tr>
<td>3</td>
<td>Current smoker (within 30 days of surgery)</td>
</tr>
<tr>
<td>4</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

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:

<table>
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<th>Code</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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  
**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, etc.).

**Intent/Clarification:** Nonmedical use of prescription narcotics involves taking by prescription or otherwise, 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.

Harvest Codes:

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<tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>2</td>
<td>No</td>
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</tbody>
</table>

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**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:

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<th>Value</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>2</td>
<td>No</td>
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</table>
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., schizophrenia; 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.

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:

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<th>Code</th>
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<tbody>
<tr>
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<tr>
<td>2</td>
<td>No</td>
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</table>

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:

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<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
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</table>

**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 3x week 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.

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lives alone</td>
<td>Patient lives independently without others in the home and is able to perform ADLs without assistance.</td>
</tr>
<tr>
<td>2</td>
<td>Lives with-family or friend</td>
<td>Patient lives with others in the home and is able to perform ADLs without assistance.</td>
</tr>
</tbody>
</table>
General Thoracic Surgery Database
V2.41 Training Manual
September 24, 2018

<table>
<thead>
<tr>
<th>SeqNo</th>
<th>Long Name</th>
<th>Short Name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Assisted Living</td>
<td></td>
<td>Patient has assistance with activities of daily living in their home or lives in an Assisted Living facility.</td>
</tr>
<tr>
<td>4</td>
<td>Nursing Home</td>
<td></td>
<td>Patient resides in a Nursing Home facility.</td>
</tr>
</tbody>
</table>

**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 patient's 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Independent</td>
<td>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.</td>
</tr>
<tr>
<td>2</td>
<td>Partially Dependent</td>
<td>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</td>
</tr>
<tr>
<td>3</td>
<td>Totally Dependent</td>
<td>The patient requires total assistance for all activities of daily living</td>
</tr>
<tr>
<td>4</td>
<td>Unknown</td>
<td>If unable to ascertain the functional status prior to surgery, report as unknown</td>
</tr>
</tbody>
</table>


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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>Fully active, able to carry on all pre-disease performance without restriction</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>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</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Ambulatory and capable of all self-care but unable to carry out any work activities. Up and about more than 50% of waking hours</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Capable of only limited self-care, confined to bed or chair more than 50% of waking hours</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Completely disabled. Cannot carry on any self-care. Totally confined to bed or chair.</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Dead</td>
</tr>
</tbody>
</table>

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.

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): A condition 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.


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 thymus can 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 beam 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.
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 outpouching 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 esophagus due to 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): Esophageal stricture or stenosis is narrowing or tightening of the internal diameter of the esophagus 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, 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.
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.

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.

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<td>660</td>
<td>Diaphragm tumor, metastatic (198.89, C79.89)</td>
</tr>
<tr>
<td>650</td>
<td>Diaphragm tumor, malignant (171.4, C49.3)</td>
</tr>
<tr>
<td>640</td>
<td>Diaphragmatic paralysis (519.4, J98.6)</td>
</tr>
<tr>
<td>750</td>
<td>Achalasia of esophagus (530.0, K22.0)</td>
</tr>
<tr>
<td>1210</td>
<td>Foreign body esophagus (935.1, T18.108a)</td>
</tr>
<tr>
<td>820</td>
<td>Acquired absence of esophagus (post esophagectomy) (V45.79, Z90.89)</td>
</tr>
<tr>
<td>810</td>
<td>Gastric outlet obstruction, pyloric stenosis, acquired (537.0, K31.1)</td>
</tr>
<tr>
<td>1190</td>
<td>Dyskinesia/spasm of esophagus (530.5, K22.4)</td>
</tr>
<tr>
<td>1200</td>
<td>Mallory Weiss tear (530.7, K22.6)</td>
</tr>
<tr>
<td>780</td>
<td>Epiphrenic diverticulum (530.6, K22.5)</td>
</tr>
<tr>
<td>1180</td>
<td>Stricture and stenosis of esophagus (530.3, K22.2)</td>
</tr>
<tr>
<td>760</td>
<td>Esophageal perforation (530.4, K22.3)</td>
</tr>
<tr>
<td>800</td>
<td>Tracheoesophageal fistula (530.84, J86.0)</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>730</td>
<td>Esophageal stricture (530.3, K22.2)</td>
</tr>
<tr>
<td>1230</td>
<td>Ulcer esophagus with bleeding (530.21, K22.11)</td>
</tr>
<tr>
<td>720</td>
<td>Esophageal tumor-benign (i.e., leiomyoma) (211.0, D13.0)</td>
</tr>
<tr>
<td>1220</td>
<td>Ulcer esophagus without bleeding (530.2, K22.10)</td>
</tr>
<tr>
<td>1160</td>
<td>Esophagitis (530.1, K20.9)</td>
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<tr>
<td>770</td>
<td>Zenkers diverticulum (530.6, K22.5)</td>
</tr>
<tr>
<td>1480</td>
<td>Other disease of the esophagus (530.89, K22.8)</td>
</tr>
<tr>
<td>1470</td>
<td>Other digestive system complication (997.49, K91.XX)</td>
</tr>
<tr>
<td>1060</td>
<td>Acute respiratory failure (518.81, J96.00)</td>
</tr>
<tr>
<td>140</td>
<td>Lung tumor, benign (e.g., hamartoma) (212.3, D14.30)</td>
</tr>
<tr>
<td>1310</td>
<td>Aspergillosis (117.3, B44.9)</td>
</tr>
<tr>
<td>280</td>
<td>Pneumonia (486.0, J18.9)</td>
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<tr>
<td>220</td>
<td>Bronchiectasis (494.0, J47.9)</td>
</tr>
<tr>
<td>1380</td>
<td>Post inflammatory pulmonary fibrosis (515, J84.89)</td>
</tr>
<tr>
<td>1340</td>
<td>Cystic fibrosis with pulmonary manifestations (277.02, E84.0)</td>
</tr>
<tr>
<td>1390</td>
<td>Primary Pulmonary Hypertension (416.0, I27.0)</td>
</tr>
<tr>
<td>250</td>
<td>Emphysema (492.8, J43.8)</td>
</tr>
<tr>
<td>290</td>
<td>Pulmonary insufficiency following surgery/trauma (ARDS) (518.5, J95.82)</td>
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<tr>
<td>260</td>
<td>Emphysematous bleb (492.0, J43.9)</td>
</tr>
<tr>
<td>1070</td>
<td>Pulmonary sequestration (748.5, Q33.2)</td>
</tr>
<tr>
<td>200</td>
<td>Lung abscess (513.0, J85.2)</td>
</tr>
<tr>
<td>1400</td>
<td>Transplanted lung complication(s) (996.84, T86.8XX)</td>
</tr>
<tr>
<td>270</td>
<td>Interstitial lung disease/fibrosis (516.3, J84.1)</td>
</tr>
<tr>
<td>1080</td>
<td>Gangrene and necrosis of lung (513.0, J85.0)</td>
</tr>
<tr>
<td>210</td>
<td>Pneumothorax (512.8, J93.1)</td>
</tr>
<tr>
<td>300</td>
<td>Hemothorax (511.8, J94.2)</td>
</tr>
<tr>
<td>310</td>
<td>Solitary pulmonary nodule (not a tumor, e.g., granuloma, subpleural lymph node, pulmonary infarct) (793.11, R91.1)</td>
</tr>
<tr>
<td>330</td>
<td>Mediastinal nodes, metastatic (196.1, C77.1)</td>
</tr>
<tr>
<td>460</td>
<td>Mediastinal cyst, Pericardial (519.3, J98.5)</td>
</tr>
<tr>
<td>1410</td>
<td>Benign neoplasm of thymus (212.6, D15.0)</td>
</tr>
<tr>
<td>470</td>
<td>Mediastinal cyst, Thymic (519.3, J98.5)</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>390</td>
<td>Lymphoma, intrathoracic (202.82, C85.92)</td>
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<tr>
<td>340</td>
<td>Mediastinal nodes, benign (229.0, D36.0)</td>
</tr>
<tr>
<td>1090</td>
<td>Mediastinal abscess (513.1, J85.3)</td>
</tr>
<tr>
<td>320</td>
<td>Mediastinitis (519.2, J98.5)</td>
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<tr>
<td>440</td>
<td>Mediastinal cyst, Bronchogenic (519.3, J98.5)</td>
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<tr>
<td>420</td>
<td>Posterior mediastinal tumor- benign (neurogenic) (212.5, D15.2)</td>
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<tr>
<td>450</td>
<td>Mediastinal cyst, Foregut duplication (519.3, J98.5)</td>
</tr>
<tr>
<td>1430</td>
<td>Unspecified disease of thymus gland (254.9, E32.9)</td>
</tr>
<tr>
<td>230</td>
<td>Empyema with fistula (510.0, J86.0)</td>
</tr>
<tr>
<td>540</td>
<td>Pleural thickening (511.0, J94.9)</td>
</tr>
<tr>
<td>240</td>
<td>Empyema without fistula (510.9, J86.9)</td>
</tr>
<tr>
<td>530</td>
<td>Pleural tumor, benign (212.4, D19.0)</td>
</tr>
<tr>
<td>1680</td>
<td>Empyema, tuberculosis (A15.6)</td>
</tr>
<tr>
<td>520</td>
<td>Pleural tumor, metastatic (197.2, C78.2)</td>
</tr>
<tr>
<td>490</td>
<td>Pleural effusion, infected- (empyema) (511.1, J86.9)</td>
</tr>
<tr>
<td>1450</td>
<td>Malignant neoplasm other specified sites of pleura (163.8, C38.4)</td>
</tr>
<tr>
<td>500</td>
<td>Pleural effusion, malignant (197.2, C78.2)</td>
</tr>
<tr>
<td>510</td>
<td>Malignant tumor of pleura, unspecified (e.g., mesothelioma) (163.9, C45)</td>
</tr>
<tr>
<td>480</td>
<td>Pleural effusion sterile (511.9, J90)</td>
</tr>
<tr>
<td>1690</td>
<td>Pleural effusion, TB; (Tuberculous pleurisy) (012.0, A15.6)</td>
</tr>
<tr>
<td>1440</td>
<td>Pleural effusion, other specified, except TB (511.89, J90)</td>
</tr>
<tr>
<td>830</td>
<td>Goiter, nodular (241.9, E04.9)</td>
</tr>
<tr>
<td>840</td>
<td>Thyroid neoplasm, malignant (193.0, C73)</td>
</tr>
<tr>
<td>850</td>
<td>Thyroid neoplasm, benign (226.0, D34)</td>
</tr>
<tr>
<td>1300</td>
<td>Dysphagia, unspecified (787.2, R13.10)</td>
</tr>
<tr>
<td>10</td>
<td>Tracheomalacia-congenital (748.3, Q32.0)</td>
</tr>
<tr>
<td>120</td>
<td>Vocal cord paralysis unspecified (478.3, J38.00)</td>
</tr>
<tr>
<td>20</td>
<td>Tracheomalacia-acquired (519.1, J39.8)</td>
</tr>
<tr>
<td>1040</td>
<td>Vocal cord paralysis, unilateral (478.31, J38.01)</td>
</tr>
<tr>
<td>1050</td>
<td>Vocal cord paralysis, bilateral (478.33, J38.02)</td>
</tr>
<tr>
<td>50</td>
<td>Tracheostomy-hemorrhage (519.09, J95.01)</td>
</tr>
<tr>
<td>880</td>
<td>Flail chest (807.4, S22.5xxa)</td>
</tr>
<tr>
<td>SeqNo</td>
<td>Long Name</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>870</td>
<td>Sternal fracture (807.2, S22.20xa)</td>
</tr>
<tr>
<td>860</td>
<td>Rib fracture (807.0, S22.39xa)</td>
</tr>
<tr>
<td>890</td>
<td>Tracheal injury (807.5, S12.8xxa)</td>
</tr>
<tr>
<td>1240</td>
<td>Rib fractures, multiple (807.0, S22.49xa)</td>
</tr>
<tr>
<td>900</td>
<td>Traumatic pneumothorax (860.0, S27.0xxa)</td>
</tr>
<tr>
<td>1030</td>
<td>Abnormal radiologic finding (793.1, R91)</td>
</tr>
<tr>
<td>1580</td>
<td>Other non-infectious disorders of lymphatic channels (457.8, I89.8)</td>
</tr>
<tr>
<td>1530</td>
<td>Chronic airway obstruction not elsewhere classified (496, J44.9)</td>
</tr>
<tr>
<td>1590</td>
<td>Malignant neoplasm of connective tissue and other soft tissue of the thorax (171.4, C49.3)</td>
</tr>
<tr>
<td>1290</td>
<td>Chylothorax (457.8, 189.8)</td>
</tr>
<tr>
<td>1600</td>
<td>Malignant poorly differentiated neuroendocrine carcinoma, any site (209.3,C74.1)</td>
</tr>
<tr>
<td>1540</td>
<td>Disruption of internal operation, surgical wound (998.31, T81.32XA)</td>
</tr>
<tr>
<td>1610</td>
<td>Non-healing surgical wound (998.83, T81.89XA)</td>
</tr>
<tr>
<td>1550</td>
<td>Hemorrhage complicating a procedure (998.11, multiple codes)</td>
</tr>
<tr>
<td>1620</td>
<td>Other post-op infection (998.59, T81.4XXA)</td>
</tr>
<tr>
<td>1560</td>
<td>Hematoma complicating a procedure (998.12, multiple codes)</td>
</tr>
<tr>
<td>1630</td>
<td>Persistent post-op fistula not otherwise classified (998.6, T81.83XA)</td>
</tr>
<tr>
<td>1570</td>
<td>Hemoptysis unspecified (786.3, R04.2)</td>
</tr>
<tr>
<td>1640</td>
<td>Post-operative air leak (512.2, J95.812)</td>
</tr>
<tr>
<td>1250</td>
<td>Hyperhidrosis, focal axilla (705.21, L74.510)</td>
</tr>
<tr>
<td>1650</td>
<td>Secondary malignant neoplasm of other specified sites (198.89, C79.89)</td>
</tr>
<tr>
<td>1260</td>
<td>Hyperhidrosis, focal, face (705.21, L74.511)</td>
</tr>
<tr>
<td>1660</td>
<td>Shortness of breath (786.05, R06.02)</td>
</tr>
<tr>
<td>1270</td>
<td>Hyperhidrosis, focal, palms (705.21, L74.512)</td>
</tr>
<tr>
<td>1670</td>
<td>Swelling, mass or lump in chest (786.6, R22.2)</td>
</tr>
<tr>
<td>1020</td>
<td>Lymphadenopathy (785.6, R59.9)</td>
</tr>
<tr>
<td>1280</td>
<td>Other unlisted category of disease</td>
</tr>
</tbody>
</table>
**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:** CategorySecondOthICD  
**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
### Planned, staged procedure

**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 include 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:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**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.**

---

### Status of Operation

**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
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:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emergent</td>
</tr>
<tr>
<td>2</td>
<td>Urgent</td>
</tr>
<tr>
<td>3</td>
<td>Elective</td>
</tr>
<tr>
<td>4</td>
<td>Palliative</td>
</tr>
</tbody>
</table>

**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.

**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:**
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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:
Remember to capture both the original and converted procedure codes.

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

Harvest Codes:

<table>
<thead>
<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VATS to open</td>
</tr>
</tbody>
</table>
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 are a couple of examples of when conversion would be Urgent.**

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

**Intent/Clarification:**

- 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"

**Harvest Codes:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</tr>
<tr>
<td>2</td>
<td>Emergent</td>
</tr>
</tbody>
</table>

**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:

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<tr>
<td>3</td>
<td>Lymph nodes</td>
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<td>4</td>
<td>Technical</td>
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</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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<tr>
<td>1</td>
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<tr>
<td>2</td>
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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

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:

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<th>Code</th>
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<th>Definition</th>
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<td>3</td>
<td>III</td>
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<tr>
<td>4</td>
<td>IV</td>
<td>A patient with severe systemic disease that is a constant threat to life</td>
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<td>5</td>
<td>V</td>
<td>A moribund patient who is not expected to survive without the operation</td>
</tr>
<tr>
<td>6</td>
<td>VI</td>
<td>A declared brain-dead patient whose organs are being removed for donor purposes</td>
</tr>
</tbody>
</table>

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).
Not: 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.

**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 caverno stomy/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

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 (bulla or non-bulla) 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 a 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.

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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 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**

Thoracotomy, 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.

Thoracotomy, 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)

Mediastinoscopy, with or without biopsy; cervical approach (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.
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/thorascopic) 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 esophagogastronomy (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 esophagogastronomy (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 esophagogastrotomy 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 fundopasty (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 fundoplication/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.

Esophagogastoplasty with repair of TEF, cervical approach (43305): Esophageal reconstruction/repair as part of repair of a tracheoesophageal fistula via cervical (neck) approach.

Esophagogastoplasty 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), methylmethacralate/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 suprathyroid 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 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.

---

**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:**

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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

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

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.

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:**

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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:**

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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:**

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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:

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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:

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**Lung Cancer**

SeqNo: 1630  
**Long Name:** Lung Cancer Diagnosed or Suspected PreOp  
**Short Name:** LungCancerSus
**Definition:** (this is a clearer definition than in the data specifications) Indicate if lung cancer was diagnosed pre-operatively or suspected pre-operatively.

**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 preoperatively)*

ParentLongName: Lung Cancer
ParentShortName: LungCancer
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

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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.

ParentLongName: Lung Cancer  
ParentShortName: LungCancer  
ParentValue: = "Yes"  
ParentHarvestCodes: 1

Harvest Codes:
**General Thoracic Surgery Database**

**V2.41 Training Manual**

**September 24, 2018**

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**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: | 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:** Include any needle biopsy done by CT or EBUS. FINA – fine needle aspiration. Code Electromagnetic Navigation Bronchoscopy (ENB) as needle biopsy. Needle biopsy ONLY refers to CT-guided biopsy of the tumor—EBUS biopsy is mediastinal staging and should not be coded as a needle biopsy.

ParentLongName: Lung Cancer  
ParentShortName: LungCancer  
ParentValue: "Yes"  
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**September 2018:** Include any needle biopsy done by CT, FINA (fine needle aspiration) and ENB (electromagnetic navigation bronchoscopy).

| 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

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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.

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.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

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</table>
**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:**

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**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:**

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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:

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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:

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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.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1
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<td>2</td>
<td>Yes, reason not documented</td>
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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
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SeqNo: 1740
Long Name: Invasive Mediastinal Staging - Mediastinal Lymphadenopathy on CT > 1 cm
Short Name: ClinStagInvasiveLymph 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

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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:

ParentLongName: Invasive Mediastinal Staging Performed
ParentShortName: ClinStagInvasive
ParentValue: = "Yes, reason documented"
ParentHarvestCodes: 1

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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.
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:

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SeqNo: 1780
Long Name: Clinical Staging Method - Lung – EBUS
Short Name: ClinStagLungEBUS
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
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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 patient’s staging.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

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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:

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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:

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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.
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 the trachea, 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:

<table>
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<th>Value</th>
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<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
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</table>

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:

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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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. 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 cancerous.

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.

September 2018: I previously used the PET for preop tumor size in V2.3. It specifically indicates to use the CT for preop tumor size for V2.4. I have a preop PET size of 1.1cm and a preop CT size of 0.6cm. Do I now use the CT size? Yes, per the instructions.

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.

ParentLongName: Clinical Staging Done For Lung Cancer
ParentShortName: ClinStagDoneLung
ParentValue: = "Yes"
ParentHarvestCodes: 1

    Harvest Codes:

    Code: Value:
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:**

<table>
<thead>
<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tis</td>
</tr>
<tr>
<td>2</td>
<td>T1</td>
</tr>
<tr>
<td>3</td>
<td>T2</td>
</tr>
<tr>
<td>4</td>
<td>T3</td>
</tr>
<tr>
<td>5</td>
<td>T4</td>
</tr>
</tbody>
</table>

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 nodes 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:

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<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N0</td>
<td>No regional lymph node metastasis</td>
</tr>
<tr>
<td>2</td>
<td>N1</td>
<td>Metastasis in ipsilateral peribronchial or hilar and intrapulmonary nodes. Includes direct extension</td>
</tr>
<tr>
<td>3</td>
<td>N2</td>
<td>Metastasis in ipsilateral mediastinal and/or subcarinal lymph nodes</td>
</tr>
<tr>
<td>4</td>
<td>N3</td>
<td>Metastasis in contralateral mediastinal or contralateral hilar nodes, ipsilateral or contralateral scalene or supraclavicular nodes</td>
</tr>
</tbody>
</table>

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:

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<th>Value</th>
<th>Definition</th>
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<tbody>
<tr>
<td>1</td>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
<tr>
<td>4</td>
<td>M1</td>
<td>Distant Metastasis</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>No cancer found, benign tumor</td>
</tr>
<tr>
<td>2</td>
<td>Tumor present</td>
</tr>
</tbody>
</table>

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 original tumor size for clinical staging. Path - T0N0M0.
General Thoracic Surgery Database
V2.41 Training Manual
September 24, 2018

ParentHarvestCodes: 2

Harvest Codes and Value Definitions:

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<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>TX</td>
<td>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.</td>
</tr>
<tr>
<td>8</td>
<td>T0</td>
<td>No evidence of primary tumor</td>
</tr>
<tr>
<td>9</td>
<td>Tis</td>
<td>Carcinoma in situ; squamous cell carcinoma in situ (SCIS); Adenocarcinoma in situ (AIS): adenocarcinoma with pure lepidic pattern, &lt;=3 cm in greatest dimension</td>
</tr>
<tr>
<td>10</td>
<td>T1mi</td>
<td>Minimally invasive adenocarcinoma: adenocarcinoma (&lt;=3 cm in greatest dimension) with a predominantly lepidic pattern and &lt;=5 mm invasion in greatest dimension.</td>
</tr>
<tr>
<td>11</td>
<td>T1a</td>
<td>Tumor &lt;=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.</td>
</tr>
<tr>
<td>12</td>
<td>T1b</td>
<td>Tumor &gt;1 cm but &lt;= 2 cm in greatest dimension</td>
</tr>
<tr>
<td>13</td>
<td>T1c</td>
<td>Tumor &gt; 2 cm but &lt;= 3 cm in greatest dimension</td>
</tr>
<tr>
<td>14</td>
<td>T2a</td>
<td>Tumor &gt;3 cm but &lt;= 4 cm at greatest dimension, or having any of the following features: 1. involves the main bronchus regardless of distance to the carina, 2. without involvement of the carina; invades visceral pleura (PL1 or PL2); 3. associated with atelectasis or obstructive pneumonitis that extends to the hilar region</td>
</tr>
<tr>
<td>15</td>
<td>T2b</td>
<td>Tumor &gt;4 cm but &lt;=5 cm at greatest dimension</td>
</tr>
<tr>
<td>16</td>
<td>T3</td>
<td>Tumor &gt; 5 cm but &lt;= 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</td>
</tr>
<tr>
<td>17</td>
<td>T4</td>
<td>Tumor &gt; 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</td>
</tr>
</tbody>
</table>

SeqNo: 1930
Long Name: Lung - Final pathological staging - Visceral Pleura Invasion
Short Name: VisPleuralInv
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:

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<th>Value</th>
<th>Definition</th>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>NX</td>
<td>Regional lymph nodes cannot be assessed</td>
</tr>
<tr>
<td>1</td>
<td>N0</td>
<td>No regional lymph node metastasis</td>
</tr>
<tr>
<td>2</td>
<td>N1</td>
<td>Metastasis in ipsilateral peribronchial and/or ipsilateral hilar nodes, intrapulmonary nodes, includes direct extension</td>
</tr>
<tr>
<td>3</td>
<td>N2</td>
<td>Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s)</td>
</tr>
<tr>
<td>4</td>
<td>N3</td>
<td>Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene or supraclavicular lymph node(s)</td>
</tr>
</tbody>
</table>

SeqNo: 1950
Long Name: Lung CA Multi-station N2
Short Name: PathStageLungMultiN2
Definition: Indicate if the final pathology report specifies multi-station N2.

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.
ParentLongName: Pathologic Staging - Lung Cancer - N
ParentShortName: PathStageLungN
ParentValue: = "N2"
ParentHarvestCodes: 3

Harvest Codes:

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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
<tr>
<td>4</td>
<td>M1</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carcinoma in situ</td>
</tr>
<tr>
<td>2</td>
<td>Adenocarcinoma</td>
</tr>
<tr>
<td>3</td>
<td>Squamous cell</td>
</tr>
<tr>
<td>4</td>
<td>Large cell</td>
</tr>
<tr>
<td>5</td>
<td>Small cell</td>
</tr>
<tr>
<td>8</td>
<td>Low grade neuroendocrine (typical carcinoid)</td>
</tr>
<tr>
<td>9</td>
<td>Intermediate grade neuroendocrine, atypical carcinoid</td>
</tr>
<tr>
<td>7</td>
<td>Mixed</td>
</tr>
<tr>
<td>10</td>
<td>Other</td>
</tr>
</tbody>
</table>

**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’.

---

**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

<table>
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<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Low grade (well differentiated)</td>
</tr>
<tr>
<td>2</td>
<td>Intermediate grade (moderately differentiated)</td>
</tr>
</tbody>
</table>
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 – If you can work with the pathologist and surgeon to determine if the fragments came from more than one lymph node. If pathology report describes sample as “lymph nodes, level 11R, excisions: fragments of lymph nodes negative for malignancy” how should we be counting the fragments? The fragments likely came from one node and the surgeons count them as one node. If the surgeons have two separate level 11R nodes, they are labeled as such. If there are five pieces of the same node, it is not accurate to count them separately.

ParentLongName: Clinical Staging - Lung - Result
ParentShortName: ClinStageLungResult
ParentValue: = "Tumor present"
ParentHarvestCodes: 2

---

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 mediastinoscopy 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 node 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 station (level 5). 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).

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:

<table>
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<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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
### 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:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R1</td>
<td>Microscopic residual tumor present</td>
</tr>
<tr>
<td>2</td>
<td>R2</td>
<td>Macroscopic (gross) residual tumor present</td>
</tr>
</tbody>
</table>

**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:

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<thead>
<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<th>Value</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

**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.
**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

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</tbody>
</table>

---

**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

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</table>
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:  

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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:  

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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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:**

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<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T0</td>
<td>No evidence of primary tumor</td>
</tr>
<tr>
<td>2</td>
<td>Tis</td>
<td>High grade dysplasia</td>
</tr>
<tr>
<td>9</td>
<td>T1</td>
<td>Tumor invades lamina propria, mucosa or submucosa</td>
</tr>
<tr>
<td>5</td>
<td>T2</td>
<td>Tumor invades muscularis propria</td>
</tr>
<tr>
<td>6</td>
<td>T3</td>
<td>Tumor invades adventitia</td>
</tr>
<tr>
<td>10</td>
<td>T4</td>
<td>Tumor invades adjacent structures</td>
</tr>
</tbody>
</table>

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
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 if the primary cancer involved only the cervical or upper thoracic esophagus.

ParentLongName: Clinical Staging Performed For Esophageal Cancer  
ParentShortName: ClinStagDoneEsoph  
ParentValue: = "Yes"  
ParentHarvestCodes: 1

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<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>M0</td>
<td>No Distant Metastasis</td>
</tr>
<tr>
<td>2</td>
<td>M1</td>
<td>Distant Metastasis</td>
</tr>
</tbody>
</table>

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:

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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tr>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:
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:

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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No cancer found or benign tumor</td>
</tr>
<tr>
<td>2</td>
<td>Esophageal cancer present</td>
</tr>
</tbody>
</table>
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:

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<th>Value</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>TX</td>
<td>Tumor cannot be assessed</td>
</tr>
<tr>
<td>1</td>
<td>T0</td>
<td>No evidence of primary tumor</td>
</tr>
<tr>
<td>2</td>
<td>Tis</td>
<td>High Grade Dysplasia, defined as malignant cells confined to the epithelium by the basement membrane</td>
</tr>
<tr>
<td>3</td>
<td>T1a</td>
<td>Tumor invades lamina propria or muscularis mucosa</td>
</tr>
<tr>
<td>4</td>
<td>T1b</td>
<td>Tumor invades submucosa</td>
</tr>
<tr>
<td>5</td>
<td>T2</td>
<td>Tumor invades muscularis propria</td>
</tr>
<tr>
<td>6</td>
<td>T3</td>
<td>Tumor invades adventitia</td>
</tr>
<tr>
<td>7</td>
<td>T4a</td>
<td>Tumor invades pleura, pericardium or diaphragm</td>
</tr>
<tr>
<td>8</td>
<td>T4b</td>
<td>Tumor invades adjacent structures such as aorta, vertebral body, or airway</td>
</tr>
</tbody>
</table>

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:
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<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
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<tr>
<td>7</td>
<td>NX</td>
<td>Regional lymph nodes cannot be assessed</td>
</tr>
<tr>
<td>1</td>
<td>N0</td>
<td>No regional lymph node metastasis</td>
</tr>
<tr>
<td>8</td>
<td>N1</td>
<td>Metastasis in 1-2 regional nodes</td>
</tr>
<tr>
<td>9</td>
<td>N2</td>
<td>Metastasis in 3-6 regional lymph nodes</td>
</tr>
<tr>
<td>10</td>
<td>N3</td>
<td>Metastasis in 7 or more regional lymph nodes</td>
</tr>
</tbody>
</table>

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:

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<tr>
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<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
<tr>
<td>2</td>
<td>M1</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>

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
Parent Value: = "Esophageal cancer present"
Parent Harvest Codes: 2

Harvest Codes and Value Definitions:

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<th>Definition</th>
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<tr>
<td>1</td>
<td>H1</td>
<td>Squamous Carcinoma</td>
</tr>
<tr>
<td>2</td>
<td>H2</td>
<td>Adenocarcinoma</td>
</tr>
<tr>
<td>3</td>
<td>Other</td>
<td>Other</td>
</tr>
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</table>

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:

Parent Long Name: Clinical Staging - Esophagus - Result
Parent Short Name: ClinStageEsophResult
Parent Value: = "Esophageal cancer present"
Parent Harvest Codes: 2

Harvest Codes and Value Definitions:

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<th>Definition</th>
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<td>GX</td>
<td>Grade cannot be assessed</td>
</tr>
<tr>
<td>2</td>
<td>G1</td>
<td>Well differentiated</td>
</tr>
<tr>
<td>3</td>
<td>G2</td>
<td>Moderately differentiated</td>
</tr>
<tr>
<td>4</td>
<td>G3</td>
<td>Poorly differentiated, undifferentiated</td>
</tr>
</tbody>
</table>

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

Parent Long Name: 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:

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**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
- 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)
- 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:

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<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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**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:

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<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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**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:
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:

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<td>2</td>
<td>No</td>
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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:

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<td>Yes</td>
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<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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:  

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Full Sternotomy</td>
</tr>
<tr>
<td>2</td>
<td>Clamshell or Hemiclamshell</td>
</tr>
<tr>
<td>3</td>
<td>Transcervical</td>
</tr>
<tr>
<td>4</td>
<td>Partial Sternotomy</td>
</tr>
<tr>
<td>5</td>
<td>Robotic</td>
</tr>
<tr>
<td>6</td>
<td>VATS</td>
</tr>
</tbody>
</table>

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.
**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Right</td>
</tr>
<tr>
<td>2</td>
<td>Left</td>
</tr>
<tr>
<td>3</td>
<td>Bilateral</td>
</tr>
</tbody>
</table>

---

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes, planned (went into OR with intent to convert to Open approach)</td>
</tr>
<tr>
<td>2</td>
<td>Yes, unplanned (converted to open approach based on findings)</td>
</tr>
<tr>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sternotomy (full or partial)</td>
</tr>
<tr>
<td>2</td>
<td>Clamshell</td>
</tr>
<tr>
<td>3</td>
<td>Thoracotomy</td>
</tr>
</tbody>
</table>

---

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**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:**

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
Harvest Codes and Value Definitions:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stage I</td>
<td>Grossly and microscopically encapsulated. Also called a noninvasive thymoma. That is, it has not spread beyond the thymus.</td>
</tr>
<tr>
<td>2</td>
<td>Stage II</td>
<td>The thymoma invades beyond the capsule (outer boundary of the thymus) and into the nearby fatty tissue or to the mediastinal pleura</td>
</tr>
<tr>
<td>3</td>
<td>Stage IIa</td>
<td>Microscopic transcapsular invasion</td>
</tr>
<tr>
<td>4</td>
<td>Stage IIb</td>
<td>Macroscopic capsular invasion</td>
</tr>
<tr>
<td>5</td>
<td>Stage III</td>
<td>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.</td>
</tr>
<tr>
<td>6</td>
<td>Stage IVa</td>
<td>Pleural or pericardial dissemination. The thymoma has spread widely throughout the pleura and/or pericardium.</td>
</tr>
<tr>
<td>7</td>
<td>Stage IVb</td>
<td>Hematogenous or lymphatic dissemination. The thymoma has spread to distant organs.</td>
</tr>
</tbody>
</table>

**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. This case is not collected. If the patient does not have a thymoma do not capture the case.

**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.

---

**SeqNo:** 2440  
**Long Name:** 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Type A</td>
</tr>
<tr>
<td>2</td>
<td>Type AB</td>
</tr>
<tr>
<td>3</td>
<td>Type B1</td>
</tr>
<tr>
<td>4</td>
<td>Type B2</td>
</tr>
<tr>
<td>5</td>
<td>Type B3</td>
</tr>
<tr>
<td>6</td>
<td>Thymic Carcinoma or Type C</td>
</tr>
<tr>
<td>7</td>
<td>Not Thymoma</td>
</tr>
</tbody>
</table>

**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.**

---

**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:
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:

ParentLongName: Collecting Data for Thymus or Mediastinal Mass Resection
ParentShortName: ThymusMediastinalData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

Code: Value:
1  Yes
2  No

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
**Unintentional phrenic nerve palsy - Post-Operative event (30 day)**

**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

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**Patient Alive 90 Days Post Procedure**

**Definition:** Indicate if the patient is alive at 90 days post-operative.

**Intent/Clarification:**

ParentLongName: Patient Alive 30 Days Post Procedure
ParentShortName: PtAlive30Day
ParentValue: = "Yes"
ParentHarvestCodes: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**Adjuvant thoracic radiation - Post-Operative event (90 day)**

**Definition:** Indicate whether the patient initiated adjuvant thoracic radiation within 90 days post operatively.

**Intent/Clarification:**
**General Thoracic Surgery Database**
**V2.41 Training Manual**
*September 24, 2018*

**ParentLongName:** Patient Alive 90 Days Post Procedure  
**ParentShortName:** PtAlive90Day  
**ParentValue:** = "Yes"  
**ParentHarvestCodes:** 1  

**Harvest Codes:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**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  

**Tracheal Resection**

**SeqNo:** 2520  
**Long Name:** Current Airway - Pre-Operative  
**Short Name:** AirwayCurr  
**Definition:** 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

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:

<table>
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</tr>
<tr>
<td>2</td>
<td>Left</td>
</tr>
<tr>
<td>3</td>
<td>Both</td>
</tr>
</tbody>
</table>

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:

<table>
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<th>Value</th>
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<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**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).

---

**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.
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 Venovenous 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:
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:

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<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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 as reported on the pathology or surgical report.

Intent/Clarification:

ParentLongName: Collecting data for tracheal resection
ParentShortName: TrachealData
ParentValue: = "Yes"
ParentHarvestCodes: 1

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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:  

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

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:  

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Suprahoid</td>
</tr>
<tr>
<td>2</td>
<td>Suprathyroid</td>
</tr>
<tr>
<td>3</td>
<td>Hilar</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

**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"
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.

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:
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.  

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection  
ParentShortName: TrachealData  
ParentValue: = "Yes"  
ParentHarvestCodes: 

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Patient died in hospital</td>
</tr>
</tbody>
</table>

SeqNo: 2790  
**Long Name:** Patient is stent/tube free at 30 days postoperatively  
**Short Name:** StentTubeFree30days  
**Definition:** Indicate if the patient is free of a stent or tracheal tube at 30 days postoperatively.  

**Intent/Clarification:**

ParentLongName: Collecting data for tracheal resection  
ParentShortName: TrachealData  
ParentValue: = "Yes"  
ParentHarvestCodes: 1  

Harvest Codes: 

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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:

ParentLongName: Patient Is Stent/Tube Free At 30 Days Postoperative
ParentShortName: StentTubeFree30days
ParentValue: = "No"
ParentHarvestCodes: 2

Harvest Codes:

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<th>Code</th>
<th>Value</th>
</tr>
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<tbody>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Patient died within 90 days of procedure</td>
</tr>
</tbody>
</table>

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:

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<tr>
<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
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<td>Yes</td>
</tr>
</tbody>
</table>
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:

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<th>Value</th>
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</thead>
<tbody>
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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<th>Value</th>
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<tbody>
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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<td>Yes</td>
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<td>2</td>
<td>No</td>
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</tbody>
</table>

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"
General Thoracic Surgery Database
V2.41 Training Manual
September 24, 2018

ParentHarvestCodes: 1

Harvest Codes:

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<tr>
<td>2</td>
<td>No</td>
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</tbody>
</table>

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:

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<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<th>Value</th>
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</thead>
<tbody>
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</table>
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:

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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tbody>
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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
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</table>

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:

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<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**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:**

<table>
<thead>
<tr>
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<tbody>
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<td>Complete</td>
</tr>
<tr>
<td>2</td>
<td>Partial</td>
</tr>
<tr>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**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:**

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

---

**SeqNo:** 2950  
**Long Name:** Esophagitis - LA Grade  
**Short Name:** LAGrade  
**Definition:** Indicate the LA Grade.

**Intent/Clarification:**
Sequences:

**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:** hiatalHerniaData  
**ParentHarvestCodes:** 1  
**ParentValue:** = "Yes"

Harvest Codes:

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<td>2</td>
<td>B</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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

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:

<table>
<thead>
<tr>
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<th>Value</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>Yes</td>
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<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
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<tbody>
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<td>Normal</td>
</tr>
<tr>
<td>2</td>
<td>Decreased</td>
</tr>
<tr>
<td>3</td>
<td>Aperistalsis</td>
</tr>
</tbody>
</table>

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

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:

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<th>Value</th>
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<tbody>
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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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.

ParentLongName: Imaging performed
ParentShortName: ImagePerform
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

<table>
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<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Barium swallow / upper GI series</td>
</tr>
<tr>
<td>2</td>
<td>CT Scan</td>
</tr>
<tr>
<td>3</td>
<td>CXR</td>
</tr>
</tbody>
</table>
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

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I - sliding hiatal hernia; GE junction is above the diaphragmatic hiatus</td>
</tr>
<tr>
<td>2</td>
<td>II - paraesophageal hernia; GE junction is in normal position, but a portion of the gastric fundus is above the diaphragmatic hiatus</td>
</tr>
<tr>
<td>3</td>
<td>III - mixed - both the GE junction and gastric fundus are above the diaphragmatic hiatus</td>
</tr>
<tr>
<td>4</td>
<td>IV - presence of other abdominal viscera in the hernia sac in addition to the stomach</td>
</tr>
</tbody>
</table>
**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

---

**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:  

<table>
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<th>Value</th>
</tr>
</thead>
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<tr>
<td>2</td>
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</tbody>
</table>
**General Thoracic Surgery Database**

**V2.41 Training Manual**

September 24, 2018

**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:

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**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:

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**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:**
General Thoracic Surgery Database
V2.41 Training Manual
September 24, 2018

ParentLongName: Collecting data for hiatal hernia or GERD
ParentShortName: HiatalHerniaData
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

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**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:

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**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

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:

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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:

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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:

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**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:**

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month After Procedure  
ParentShortName: GERDPtAliveMth  
ParentValue: = "Yes"  
ParentHarvestCodes: 1

Harvest Codes:

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**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:

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**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/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:

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**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:**

ParentLongName: Hiatal Hernia / GERD - Patient Alive 1 Month after Procedure
ParentShortName: GERDPtAliveMth
ParentValue: = "Yes"
ParentHarvestCodes: 1

Harvest Codes:

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</table>

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:

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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:
**Sequences:**

**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:**

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</table>

**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:**

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</table>
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.

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</tr>
<tr>
<td>2</td>
<td>Intermediate Care Unit</td>
</tr>
<tr>
<td>3</td>
<td>Regular floor bed</td>
</tr>
<tr>
<td>4</td>
<td>Not applicable (expired in OR)</td>
</tr>
<tr>
<td>5</td>
<td>Outpatient or Observation Status</td>
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</table>

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:

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</table>
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:

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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

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:

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</table>

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.

ParentLongName: Postoperative Events Occurred
ParentShortName: POEvents
ParentValue: = "Yes"
ParentHarvestCodes: 1
Harvest Codes:

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SeqNo: 3340
Long Name: Primary Reason for procedure
Short Name: ReturnORRsn
Definition: Indicate the primary reason the patient returned to the OR.

Intent/Clarification:

ParentLongName: Unanticipated Post-Operative Invasive Procedure
ParentShortName: PostOpInvProc
ParentValue: = "Yes"
ParentHarvestCodes: 1
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<td>4</td>
<td>Empyema</td>
</tr>
<tr>
<td>8</td>
<td>Middle lobectomy for torsion</td>
</tr>
<tr>
<td>7</td>
<td>Conduit necrosis/failure following esophageal surgery</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
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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:

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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:

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SeqNo: 3370
Long Name: Anastomotic leak - Stent placement
Short Name: PosOpProcALStent
Definition: Indicate if stent placement was utilized for the anastomotic leak.

Intent/Clarification:

ParentLongName: Anastomotic leak following esophageal surgery
ParentShortName: PosOpProcAL
ParentValue: = "Yes"
ParentHarvestCodes: 1
Harvest Codes:

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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:

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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:

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</table>
**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:

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**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:

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**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:

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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:

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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.
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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  
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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  
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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  
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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

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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

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**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

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**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:

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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:
General Thoracic Surgery Database  
V2.41 Training Manual  
September 24, 2018

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

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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:

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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 that requires treatment. Treatment may include medications to slow the heart rate, increase the blood pressure, or any anticoagulation 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

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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.
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 so not #1890. If it increased the LOS, require treatment and consult then you can capture Other Cardiac.**

---

**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  
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**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

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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

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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

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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

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SeqNo: 3630
Long Name: Dilation of the Esophagus
**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

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*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/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:** 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"  
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**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  
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**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:

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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

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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:

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

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**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

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**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

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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: 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:

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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.
Harvest Codes:

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<thead>
<tr>
<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>2</td>
<td>Superficial</td>
</tr>
<tr>
<td>3</td>
<td>Deep</td>
</tr>
<tr>
<td>4</td>
<td>Organ space</td>
</tr>
</tbody>
</table>

**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.
Harvest Codes:

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<th>Value</th>
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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<tr>
<th>Code</th>
<th>Value</th>
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<td>1</td>
<td>Yes</td>
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<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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 encephalopathic (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.

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:

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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
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</tbody>
</table>

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:
General Thoracic Surgery Database
V2.41 Training Manual
September 24, 2018

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:

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<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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:

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<td>Yes</td>
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<td>2</td>
<td>No</td>
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</table>

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.

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:

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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
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</tbody>
</table>

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**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:

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<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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**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:

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<th>Code</th>
<th>Value</th>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
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<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>

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. Code “dead” since this patient died during the acute care hospitalization.

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:

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<th>Code</th>
<th>Value</th>
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</thead>
<tbody>
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<td>Alive</td>
</tr>
<tr>
<td>2</td>
<td>Dead</td>
</tr>
</tbody>
</table>

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:

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</tr>
</thead>
<tbody>
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<td>1</td>
<td>Home</td>
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</table>
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:
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:  

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<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Patient died within 30 days postop</td>
</tr>
<tr>
<td>4</td>
<td>Unknown</td>
</tr>
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</table>

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.

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.
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:

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<th>Value</th>
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<td>2</td>
<td>Dead</td>
</tr>
<tr>
<td>3</td>
<td>Unknown</td>
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</tbody>
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**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.

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:

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<tbody>
<tr>
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<td>Alive</td>
</tr>
<tr>
<td>2</td>
<td>Dead</td>
</tr>
</tbody>
</table>

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:

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<tbody>
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</tr>
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<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not indicated for procedure</td>
</tr>
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</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not indicated for procedure</td>
</tr>
</tbody>
</table>

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**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:

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<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not indicated for procedure</td>
</tr>
<tr>
<td>4</td>
<td>Documented allergy or indication for therapeutic substitution</td>
</tr>
</tbody>
</table>

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**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:

<table>
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<tbody>
<tr>
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</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Not indicated for procedure</td>
</tr>
<tr>
<td>3</td>
<td>No, due to documented infection</td>
</tr>
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</table>

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:

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>2</td>
<td>No</td>
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<tr>
<td>3</td>
<td>Patient refused</td>
</tr>
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<td>4</td>
<td>Nonsmoker</td>
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</table>
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:

<table>
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<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Resources

Nodal Stations

Thoracic lymph nodes are divided into 14 stations as proposed by the International Association for the Study of Lung Cancer (IASLC), principally in the context of oncologic staging.

Supraclavicular (Supraclavicular Zone)
- Station 1
  - low cervical, supraclavicular, and sternal notch nodes

Superior mediastinal (Upper Zone)
- Station 2
  - 2R: upper paratracheal right
  - 2L: upper paratracheal left
- Station 3
  - 3A: prevascular
  - 3P: retrotracheal
- Station 4
  - 4R: lower paratracheal right
  - 4L: lower paratracheal left

Aortic (AP Zone)
- Station 5
  - subaortic
- Station 6
  - para-aortic (ascending aorta or phrenic)

Inferior mediastinal
- Station 7 (subcarinal zone)
  - subcarinal
- Station 8 (lower zone)
  - para-oesophageal below carina
- Station 9 (lower zone)
  - pulmonary ligament

Hilar, Lobar, and Segmental
- These are all N1 nodes
- Station 10 (hilar/intralobar zone)
  - hilar
- Station 11 (hilar/intralobar zone)
  - interlobar
- Station 12 (peripheral zone)
  - lobar
- Station 13 (peripheral zone)
  - segmental
- Station 14 (peripheral zone)

Supraclavicular zone
- 1 Low cervical, supraclavicular, and sternal notch nodes

Superior Mediastinal Nodes
- Upper zone
  - 2R Upper Paratracheal (right)
  - 2L Upper Paratracheal (left)
  - 3a Pre-vascular
  - 3p Retracheal
  - 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

Regional Lymph Nodes (N)
- NX Regional lymph nodes cannot be assessed
- N0 No regional lymph node metastases
- N1 Metastasis in ipsilateral peribronchial and/or ipsilateral hilar lymph nodes and intrapulmonary nodes, including involvement by direct extension
- N2 Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s)
- N3 Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular lymph node(s)

ILLUSTRATION
The IASLC lymph node map shown with the proposed amalgamation of lymph into zones.
(© Memorial Sloan-Kettering Cancer Center, 2009.)