



The Society of Thoracic Surgeons General Thoracic Surgery Database Analyzed Procedure Data Collection Form Version 2.41

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Revised 5/31/2018

- An Analyzed Procedure Data Collection Form (DCF) is **required for all suspected or diagnosed Lung and Esophageal Cancer Resections** and one should be initiated every time the patient enters the operating room. These cases are risk adjusted and are included in the Data Analysis Reports.
- Fields that appear underlined and in blue are required for analyzed procedure record inclusion. If any of these fields are missing data, the entire record will be excluded from analysis.
- Completion of the **Thymus/Mediastinal Mass, Tracheal Resection and Hiatal Hernia/GERD** sections is **optional** for analyzed procedures.
- Procedures highlighted below, if performed as isolated procedures or with only other highlighted procedures, are not collected unless the Surgeon Participant chooses to track them. If collected, use the Non-analyzed Procedure DCF.
- Highlighted procedures done in conjunction with analyzed (major) procedures should be included on this Analyzed Procedure DCF.

A. Demographics															
Patient ID: _____ PatID (80)	Medical Record #: _____ MedRecN (90)														
First Name: _____ PatFName (100)	Middle Name: _____ PatMName(110)	Last Name: _____ PatLName (120)	SSN#: _____ SSN (130)												
Patient participating in STS-related clinical trial: ClinTrial (140) <input type="checkbox"/> None <input type="checkbox"/> Trial 1 <input type="checkbox"/> Trial 2 <input type="checkbox"/> Trial 3 <input type="checkbox"/> Trial 4 <input type="checkbox"/> Trial 5 <input type="checkbox"/> Trial 6 (If not "None" →) Clinical trial patient ID: _____ ClinTrialPatID (150)															
Date of Birth: ____/____/____ DOB (160) (mm/dd/yyyy)	Age: _____ Age (170)	Patient Postal Code: _____ PostalCode (180)	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Gender (190)												
<u>Is the Patient's Race Documented?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Patient Declined to Disclose RaceDocumented (200)															
<u>Race:</u> <i>If Yes select all that apply</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 2px;">White/Caucasian RaceCaucasian (210)</td> <td style="width: 10%; padding: 2px;"><input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td style="width: 50%; padding: 2px;">Black/African American RaceBlack (220)</td> <td style="width: 10%; padding: 2px;"><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td style="padding: 2px;">Asian RaceAsian (230)</td> <td style="padding: 2px;"><input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td style="padding: 2px;">American Indian/Alaskan Native RaceNativeAm (240)</td> <td style="padding: 2px;"><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td style="padding: 2px;">Native Hawaiian/Pacific Islander RacNativePacific (250)</td> <td style="padding: 2px;"><input type="checkbox"/> Yes <input type="checkbox"/> No</td> <td style="padding: 2px;">Other RaceOther (260)</td> <td style="padding: 2px;"><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> </table>				White/Caucasian RaceCaucasian (210)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Black/African American RaceBlack (220)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Asian RaceAsian (230)	<input type="checkbox"/> Yes <input type="checkbox"/> No	American Indian/Alaskan Native RaceNativeAm (240)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Native Hawaiian/Pacific Islander RacNativePacific (250)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other RaceOther (260)	<input type="checkbox"/> Yes <input type="checkbox"/> No
White/Caucasian RaceCaucasian (210)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Black/African American RaceBlack (220)	<input type="checkbox"/> Yes <input type="checkbox"/> No												
Asian RaceAsian (230)	<input type="checkbox"/> Yes <input type="checkbox"/> No	American Indian/Alaskan Native RaceNativeAm (240)	<input type="checkbox"/> Yes <input type="checkbox"/> No												
Native Hawaiian/Pacific Islander RacNativePacific (250)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other RaceOther (260)	<input type="checkbox"/> Yes <input type="checkbox"/> No												
Hispanic or Latino Ethnicity: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Documented Ethnicity (270)															

B. Admission	
<u>Admission Status:</u> <input type="checkbox"/> Inpatient <input type="checkbox"/> Outpatient / Observation AdmissionStat (280)	<i>If Inpatient →</i> Admission Date: ____/____/____ AdmitDt (290)
<u>Payor:</u> Indicate the Primary payor: PayorPrim (300) <input type="checkbox"/> None/self <input type="checkbox"/> Medicare <i>If Medicare → Fee For Service:</i> <input type="checkbox"/> Yes <input type="checkbox"/> No PrimMCareFFS (310) <input type="checkbox"/> Medicaid <input type="checkbox"/> Military Health <input type="checkbox"/> Indian Health Service <input type="checkbox"/> Correctional Facility <input type="checkbox"/> State Specific Plan <input type="checkbox"/> Other Government Insurance <input type="checkbox"/> Commercial Health Insurance <input type="checkbox"/> Health Maintenance Organization <input type="checkbox"/> Non U.S. Plan	<i>If Primary Payor is not None/Self →</i> Indicate the Secondary (supplemental) payor: PayorSecond (320) <input type="checkbox"/> None/self <input type="checkbox"/> Medicare <i>If Medicare → Fee For Service:</i> <input type="checkbox"/> Yes <input type="checkbox"/> No SecondMCareFFS (330) <input type="checkbox"/> Medicaid <input type="checkbox"/> Military Health <input type="checkbox"/> Indian Health Service <input type="checkbox"/> Correctional Facility <input type="checkbox"/> State Specific Plan <input type="checkbox"/> Other Government Insurance <input type="checkbox"/> Commercial Health Insurance <input type="checkbox"/> Health Maintenance Organization <input type="checkbox"/> Non U.S. Plan
Surgeon Name: _____ Surgeon (340)	<u>Surgeon's National Provider ID:</u> _____ SurgNPI (350)

Taxpayer ID#: _____ TIN (360)		Hospital Name: _____ HospName (370)	
Hospital Postal Code: _____ HospZIP (380)	Hospital Region: _____ HospStat (390)	Hospital's National Provider ID: _____ HospNPI (400)	
C. Pre-Operative Evaluation			
Height: _____ (cm) HeightCm (410)		Weight: _____ (kg) WeightKg (420)	
Unintentional Wt loss over past 3 months? (Enter "0" if none) - _____ (kg) WtLoss3Kg (430)			
CardioPulmonary History			
Hypertension Hypertn (440) <input type="checkbox"/> Yes <input type="checkbox"/> No		Congestive Heart Failure(CHF) <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes→ EF _____% CHF (450) EF (460)	
Coronary Artery Disease (CAD) <input type="checkbox"/> Yes <input type="checkbox"/> No CAD (470)		Myocardial Infarction <input type="checkbox"/> Yes <input type="checkbox"/> No PreMI (480)	
Afib per EKG within the last year; with or without treatment AFIB <input type="checkbox"/> Yes <input type="checkbox"/> No (490)		Valvular Heart Disease <input type="checkbox"/> Yes <input type="checkbox"/> No VHD (500) If Yes→	
		Location – check all that apply: AV <input type="checkbox"/> Yes <input type="checkbox"/> No PV <input type="checkbox"/> Yes <input type="checkbox"/> No VHDLocAV (510) VHDLocPV (530) MV <input type="checkbox"/> Yes <input type="checkbox"/> No TV <input type="checkbox"/> Yes <input type="checkbox"/> No VHDLocMV (520) VHDLocTV (540)	
Pulmonary Hypertension: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown PulmHypertn (550)			
Interstitial Fibrosis/ Interstitial Lung Disease InterstitialFib (560) <input type="checkbox"/> Yes <input type="checkbox"/> No			
Vascular History			
Major Vascular Disease <input type="checkbox"/> Yes <input type="checkbox"/> No MVD (580)			
DVT/PE <input type="checkbox"/> Yes <input type="checkbox"/> No DVTPE (590)			
Cerebral Vascular Disease History			
Cerebrovascular History: <input type="checkbox"/> No CVD history <input type="checkbox"/> Known disease, no events <input type="checkbox"/> Transient Ischemic Attack (TIA) CerebroHx (610) <input type="checkbox"/> Cerebrovascular Accident (CVA) If CVA→ Permanent Neurologic impairment <input type="checkbox"/> Yes <input type="checkbox"/> No PNI (620)			
Neuromuscular Disease			
Neurologic symptoms present <input type="checkbox"/> Yes <input type="checkbox"/> No NeuroSymptPres (630)			
Myasthenia Gravis <input type="checkbox"/> Yes <input type="checkbox"/> No MyasGravis (640)			
Endocrine / GI / Renal History			
Diabetes <input type="checkbox"/> Yes <input type="checkbox"/> No		If Yes→ Type of therapy: <input type="checkbox"/> None <input type="checkbox"/> Diet Only <input type="checkbox"/> Oral <input type="checkbox"/> Insulin DiabCtrl (660) <input type="checkbox"/> Other Subcutaneous Medication <input type="checkbox"/> Other <input type="checkbox"/> Unknown	
Liver Dysfunction <input type="checkbox"/> Yes <input type="checkbox"/> No LiverDys (670)			
On Dialysis <input type="checkbox"/> Yes <input type="checkbox"/> No Dialysis (680)			
Cancer History			
Coexisting Cancer <input type="checkbox"/> Yes <input type="checkbox"/> No CoexisCancer (690)			
Preoperative Chemotherapy / Immunotherapy <input type="checkbox"/> Yes <input type="checkbox"/> No		If Yes → <input type="checkbox"/> Same disease, ≤ 6 months PreopChemoCurWhen (710) <input type="checkbox"/> Same disease, > 6 months <input type="checkbox"/> Unrelated disease, ≤ 6 months <input type="checkbox"/> Unrelated disease, >6 months	
Preop Thoracic Radiation Therapy <input type="checkbox"/> Yes <input type="checkbox"/> No		If Yes → <input type="checkbox"/> Same disease, ≤ 6 months PreopXRDisWhen (730) <input type="checkbox"/> Same disease, > 6 months <input type="checkbox"/> Unrelated disease, ≤ 6 months <input type="checkbox"/> Unrelated disease, >6 months If Same disease, ≤ 6 months → Completion Date _____ PreopXRCompDt (740)	
Prior Surgical History (check all that apply)			
Prior Cardiothoracic Surgery <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes→ Sternotomy <input type="checkbox"/> Yes <input type="checkbox"/> No PriorStern (760) PriorCTS (750)			

<i>(check all that apply)</i>	VATS/Robotic <input type="checkbox"/> Yes <input type="checkbox"/> No PriorVATS (770) If Yes → <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Bilateral PriorVATSLoc (780)
	Pulmonary resection <input type="checkbox"/> Yes <input type="checkbox"/> No PriorPulmRes (790) If Yes → <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Bilateral PriorPulmResLoc (800)
	Thoracotomy <input type="checkbox"/> Yes <input type="checkbox"/> No PriorThora (810) If Yes → <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Bilateral PriorThoraLoc (820)

PreOp Medication History	
Chronic Immunosuppressive Therapy PreOpImmunoThx (830)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Chronic anticoagulation PreOpAnticoagThx (840)	<input type="checkbox"/> Yes <input type="checkbox"/> No (defined as any anticoagulation medication other than ASA)
Home O2 PreOpHomeO2 (850)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Pre-Operative Testing	
Creatinine level measured CreatMeasured (870)	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes → Last creatinine level _____ CreatLst (880)</i>
Hemoglobin level measured HemoglobinMeasured (890)	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes → Last hemoglobin level _____ HemoglobinLst (900)</i>
Pulmonary Function Tests performed? PFT (910)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>If No →</i>	PFT Not Performed Reason PFTNotPerReas(920) <input type="checkbox"/> Not a Major Lung Resection <input type="checkbox"/> Never smoked, no lung disease <input type="checkbox"/> Pt. Unable to perform <input type="checkbox"/> Tracheostomy or Ventilator <input type="checkbox"/> Urgent or Emergent Status
<i>If Yes →</i>	FEV1 test performed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable <i>If Yes → FEV1 % predicted: _____</i> FEV (930) FEVPred (940) DLCO test performed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable <i>If Yes → DLCO % predicted: _____</i> DLCO (950) DLCOPred (960)

Psychosocial History	
Cigarette smoking: CigSmoking (970)	<input type="checkbox"/> Never smoked <input type="checkbox"/> Past smoker (stopped >1 month prior to operation) <input type="checkbox"/> Current smoker <input type="checkbox"/> Unknown
<i>If 'Past smoker' or 'Current Smoker' →</i>	Pack Year Known or can be estimated PackYearKnown (980) <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes → Pack-Years _____</i> PackYear (990)
Narcotic dependency NarcoticDepend (1000)	<input type="checkbox"/> Yes <input type="checkbox"/> No Alcohol Abuse AlcoholAbuse (1010) <input type="checkbox"/> Yes <input type="checkbox"/> No
Dementia/neurocognitive dysfunction DemNeroDys (1020)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Major Psychiatric Disorder PsychDisorder (1030)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Living Status: LiveStat (1040)	<input type="checkbox"/> Lives alone <input type="checkbox"/> Lives with-family or friend <input type="checkbox"/> Assisted Living <input type="checkbox"/> Nursing Home
Functional Status: FuncStat (1050)	<input type="checkbox"/> Independent <input type="checkbox"/> Partially Dependent <input type="checkbox"/> Totally Dependent <input type="checkbox"/> Unknown
ECOG Score: ECOGScore (1070)	<input type="checkbox"/> 0 - Fully active, able to carry on all pre-disease performance without restriction <input type="checkbox"/> 1 - Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work <input type="checkbox"/> 2 - Ambulatory and capable of all self-care but unable to carry out any work activities. Up and about more than 50% of waking hours <input type="checkbox"/> 3 - Capable of only limited self-care, confined to bed or chair more than 50% of waking hours <input type="checkbox"/> 4 - Completely disabled. Cannot carry on any self-care. Totally confined to bed or chair <input type="checkbox"/> 5 - Dead

D. Diagnosis (Category of Disease)
Category of Disease: Check both Primary and Secondary Diagnosis (Category of Disease) (ICD-9, ICD-10). Indicate (circle) the Primary Diagnosis. CategoryPrim (1250) CategorySecond (1280)
Note: Diagnosis is based on final pathology report.
<input type="checkbox"/> No Secondary Diagnosis (<i>for Category of Disease - Secondary field only</i>)
Lung Cancer

<input type="checkbox"/> Lung cancer, main bronchus, carina (162.2, C34.00)	<input type="checkbox"/> Lung cancer, lower lobe (162.5, C34.30)
<input type="checkbox"/> Lung cancer, upper lobe (162.3, C34.10)	<input type="checkbox"/> Lung cancer, location unspecified (162.9, C34.90)
<input type="checkbox"/> Lung cancer, middle lobe (162.4, C34.2)	<input type="checkbox"/> Lung tumor, metastatic (197.0, C78.00)
<input type="checkbox"/> Malignant neoplasm other parts of bronchus or lung (162.8, C34.8)	<input type="checkbox"/> Personal history of malignant neoplasm of bronchus and lung (V10.11, Z85.118)
<input type="checkbox"/> Neoplasm of uncertain behavior of trachea, bronchus and lung (235.7, DM38.1)	
Esophagus Cancer	
<input type="checkbox"/> Esophageal cancer, esophagogastric junction (cardia) (151.0, C16.0)	<input type="checkbox"/> Malignant neo stomach unspecified (151.9, C16.9)
<input type="checkbox"/> Esophageal cancer, upper third (150.3, C15.3)	<input type="checkbox"/> Malignant neoplasm of the esophagus, unspecified (150.9, C15.9)
<input type="checkbox"/> Esophageal cancer, middle third (150.4, C15.4)	<input type="checkbox"/> Malignant other part esophagus, specified (150.8, C15.8)
<input type="checkbox"/> Esophageal cancer-lower third (150.5, C15.5)	
Thymus / Mediastinal Mass	
<input type="checkbox"/> Anterior mediastinal tumor primary(germ cell cancer, seminoma) (164.2, C38.1)	<input type="checkbox"/> Anterior mediastinal tumor-thymus tumor (thymoma, thymic carcinoma) (164.0, C37)
<input type="checkbox"/> Anterior mediastinal tumor-metastatic (197.1, C78.1)	<input type="checkbox"/> Posterior mediastinal tumor-metastatic (197.1, C78.1)
<input type="checkbox"/> Posterior mediastinal malignant tumor- primary (164.3, C38.2)	<input type="checkbox"/> Neoplasm of uncertain behavior of pleura, thymus, mediastinum (235.8, D38.2-D38.4)
<input type="checkbox"/> Anterior mediastinal tumor-benign-(e.g., teratoma) (212.5, D15.2)	<input type="checkbox"/> Myasthenia gravis (358.0, G70.00)
Trachea	
<input type="checkbox"/> Tracheal tumor, malignant (162.0, C33)	<input type="checkbox"/> Tracheal stenosis, congenital (748.3, Q32.1)
<input type="checkbox"/> Tracheal tumor, benign (212.2, D14.2)	<input type="checkbox"/> Subglottic stenosis-congenital (748.3, Q31.1)
<input type="checkbox"/> Tracheal tumor, metastatic (197.3, C78.30)	<input type="checkbox"/> Subglottic stenosis-acquired (post intubation) (478.74, J38.6)
<input type="checkbox"/> Tracheal stenosis, acquired (519.19, J39.8)	<input type="checkbox"/> Tracheostomy related stenosis (519.02, J95.03)
Hiatal Hernia / GERD	
<input type="checkbox"/> Esophageal reflux (GERD) (530.81, K21.9)	<input type="checkbox"/> Diaphragmatic hernia, with obstruction, without gangrene (552.3, K44.0)
<input type="checkbox"/> Reflux esophagitis (530.11, K21.0)	<input type="checkbox"/> Diaphragmatic hernia with gangrene (551.3, K44.1)
<input type="checkbox"/> Barrett's esophagus (530.85, K22.70)	<input type="checkbox"/> Diaphragmatic hernia without obstruction or gangrene (553.3, K44.9)
<input type="checkbox"/> Barrett's esophagus with High Grade Dysplasia (530.85, K22.711)	
Cardiovascular	
<input type="checkbox"/> Abdominal aneurysm without rupture (441.4, I171.4)	<input type="checkbox"/> Pericarditis, constrictive (432.2, I31.1)
<input type="checkbox"/> Cardiac tamponade (423.3, I31.4)	<input type="checkbox"/> SVC Syndrome (459.2, I87.1)
<input type="checkbox"/> Pericardial effusion, malignant (198.89, C79.89)	<input type="checkbox"/> Unspecified disease of the pericardium (423.9, I31.9)
<input type="checkbox"/> Pericarditis with effusion (420.9, I30.9)	
Chest Wall	
<input type="checkbox"/> Pectus carinatum (754.82, Q67.7)	<input type="checkbox"/> Sternal tumor, benign (213.3, D16.7)
<input type="checkbox"/> Pectus excavatum (754.81, Q67.6)	<input type="checkbox"/> Sternal tumor, malignant (170.3, C41.3)
<input type="checkbox"/> Rib tumor, benign-(e.g., fibrous dysplasia) (213.3, D16.7)	<input type="checkbox"/> Sternal tumor, metastatic (198.5, C79.51)
<input type="checkbox"/> Rib tumor, malignant-(e.g., osteosarcoma, chondrosarcoma) (170.3, C41.3)	<input type="checkbox"/> Thoracic outlet syndrome (353.0, G54.0)
<input type="checkbox"/> Rib tumor, metastatic (198.5, C79.51)	
Diaphragm	
<input type="checkbox"/> Diaphragm tumor, benign (215.4, D21.3)	<input type="checkbox"/> Diaphragm tumor, metastatic (198.89, C79.89)
<input type="checkbox"/> Diaphragm tumor, malignant (171.4, C49.3)	<input type="checkbox"/> Diaphragmatic paralysis (519.4, J98.6)
Esophagus - Other	
<input type="checkbox"/> Achalasia of esophagus (530.0, K22.0)	<input type="checkbox"/> Foreign body esophagus (935.1, T18.108a)
<input type="checkbox"/> Acquired absence of esophagus (post esophagectomy) (V45.79, Z90.89)	<input type="checkbox"/> Gastric outlet obstruction, pyloric stenosis, acquired (537.0, K31.1)

<input type="checkbox"/> Dyskinesia/spasm of esophagus (530.5, K22.4)	<input type="checkbox"/> Mallory Weiss tear (530.7, K22.6)
<input type="checkbox"/> Epiphrenic diverticulum (530.6, K22.5)	<input type="checkbox"/> Stricture and stenosis of esophagus (530.3, K22.2)
<input type="checkbox"/> Esophageal perforation (530.4, K22.3)	<input type="checkbox"/> Tracheoesophageal fistula (530.84, J86.0)
<input type="checkbox"/> Esophageal stricture (530.3, K22.2)	<input type="checkbox"/> Ulcer esophagus with bleeding (530.21, K22.11)
<input type="checkbox"/> Esophageal tumor-benign (i.e., leiomyoma) (211.0, D13.0)	<input type="checkbox"/> Ulcer esophagus without bleeding (530.2, K22.10)
<input type="checkbox"/> Esophagitis (530.1, K20.9)	<input type="checkbox"/> Zenkers diverticulum (530.6, K22.5)
<input type="checkbox"/> Other disease of the esophagus (530.89, K22.8)	<input type="checkbox"/> Other digestive system complication (997.49, K91.XX)
Lung – Other	
<input type="checkbox"/> Acute respiratory failure (518.81, J96.00)	<input type="checkbox"/> Lung tumor, benign (e.g., hamartoma) (212.3, D14.30)
<input type="checkbox"/> Aspergillosis (117.3, B44.9)	<input type="checkbox"/> Pneumonia (486.0, J18.9)
<input type="checkbox"/> Bronchiectasis (494.0, J47.9)	<input type="checkbox"/> Post inflammatory pulmonary fibrosis (515, J84.89)
<input type="checkbox"/> Cystic fibrosis with pulmonary manifestations (277.02, E84.0)	<input type="checkbox"/> Primary pulmonary hypertension (416.0, I 27.0)
<input type="checkbox"/> Emphysema (492.8, J43.8)	<input type="checkbox"/> Pulmonary insufficiency following surgery/trauma (ARDS) (518.5, J95.82)
<input type="checkbox"/> Emphysematous bleb (492.0, J43.9)	<input type="checkbox"/> Pulmonary sequestration (748.5, Q33.2)
<input type="checkbox"/> Lung abscess (513.0, J85.2)	<input type="checkbox"/> Transplanted lung complication(s) (996.84, T86.8XX)
<input type="checkbox"/> Interstitial lung disease/fibrosis (516.3, J84.1)	<input type="checkbox"/> Gangrene and necrosis of lung (513.0, J85.0)
<input type="checkbox"/> Pneumothorax (512.8, J93.1)	<input type="checkbox"/> Hemothorax (511.8, J94.2)
<input type="checkbox"/> Solitary pulmonary nodule (not a tumor, e.g., granuloma, subpleural lymph node, pulmonary infarct) (793.11, R91.1)	
Mediastinum	
<input type="checkbox"/> Mediastinal nodes, metastatic (196.1, C77.1)	<input type="checkbox"/> Mediastinal cyst, Pericardial (519.3, J98.5)
<input type="checkbox"/> Benign neoplasm of thymus (212.6, D15.0)	<input type="checkbox"/> Mediastinal cyst, Thymic (519.3, J98.5)
<input type="checkbox"/> Lymphoma, intrathoracic (202.82, C85.92)	<input type="checkbox"/> Mediastinal nodes, benign (229.0, D36.0)
<input type="checkbox"/> Mediastinal abscess (513.1, J85.3)	<input type="checkbox"/> Mediastinitis (519.2, J98.5)
<input type="checkbox"/> Mediastinal cyst, Bronchogenic (519.3, J98.5)	<input type="checkbox"/> Posterior mediastinal tumor-benign(neurogenic)(212.5,D15.2)
<input type="checkbox"/> Mediastinal cyst, Foregut duplication (519.3, J98.5)	<input type="checkbox"/> Unspecified disease of thymus gland (254.9, E32.9)
Pleura	
<input type="checkbox"/> Empyema with fistula (510.0, J86.0)	<input type="checkbox"/> Pleural thickening (511.0, J94.9)
<input type="checkbox"/> Empyema without fistula (510.9, J86.9)	<input type="checkbox"/> Pleural tumor, benign (212.4, D19.0)
<input type="checkbox"/> Empyema, tuberculosis (A15.6)	<input type="checkbox"/> Pleural tumor, metastatic (197.2, C78.2)
<input type="checkbox"/> Pleural effusion, infected- (empyema) (511.1, J86.9)	<input type="checkbox"/> Malignant neoplasm other specified sites of pleura (163.8, C38.4)
<input type="checkbox"/> Pleural effusion, malignant (197.2, C78.2)	<input type="checkbox"/> Malignant tumor of pleura, unspecified (e.g., mesothelioma) (163.9, C45)
<input type="checkbox"/> Pleural effusion sterile (511.9, J90)	<input type="checkbox"/> Pleural effusion, TB; (Tuberculous pleurisy) (012.0, A15.6)
<input type="checkbox"/> Pleural effusion, other specified, except TB (511.89, J90)	
Thyroid	
<input type="checkbox"/> Goiter, nodular (241.9, E04.9)	<input type="checkbox"/> Thyroid neoplasm, malignant (193.0, C73)
<input type="checkbox"/> Thyroid neoplasm, benign (226.0, D34)	
Trachea & Larynx	
<input type="checkbox"/> Dysphagia, unspecified (787.2, R13.10)	<input type="checkbox"/> Vocal cord paralysis unspecified (478.3, J38.00)
<input type="checkbox"/> Tracheomalacia-congenital (748.3, Q32.0)	<input type="checkbox"/> Vocal cord paralysis , unilateral (478.31, J38.01)
<input type="checkbox"/> Tracheomalacia-acquired (519.1, J39.8)	<input type="checkbox"/> Vocal cord paralysis, bilateral (478.33, J38.02)
<input type="checkbox"/> Tracheostomy-hemorrhage (519.09, J95.01)	
Trauma	
<input type="checkbox"/> Flail chest (807.4, S22.5xxa)	<input type="checkbox"/> Sternal fracture (807.2, S22.20xa)
<input type="checkbox"/> Rib fracture (807.0, S22.39xa)	<input type="checkbox"/> Tracheal injury (807.5, S12.8xxa)
<input type="checkbox"/> Rib fractures, multiple (807.0, S22.49xa)	<input type="checkbox"/> Traumatic pneumothorax (860.0, S27.0xxa)
Miscellaneous	

<input type="checkbox"/> Abnormal radiologic finding (793.1, R91)	<input type="checkbox"/> Other non-infectious disorders of lymphatic channels (457.8, I89.8)
<input type="checkbox"/> Chronic airway obstruction not elsewhere classified (496, J44.9)	<input type="checkbox"/> Malignant neoplasm of connective tissue and other soft tissue of the thorax (171.4, C49.3)
<input type="checkbox"/> Chylothorax (457.8, 189.8)	<input type="checkbox"/> Malignant poorly differentiated neuroendocrine carcinoma, any site (209.3, C74.1)
<input type="checkbox"/> Disruption of internal operation, surgical wound (998.31, T81.32XA)	<input type="checkbox"/> Non-healing surgical wound (998.83, T81.89XA)
<input type="checkbox"/> Hemorrhage complicating a procedure (998.11, multiple codes)	<input type="checkbox"/> Other post- op infection (998.59, T81.4XXA)
<input type="checkbox"/> Hematoma complicating a procedure (998.12, multiple codes)	<input type="checkbox"/> Persistent post-op fistula not otherwise classified (998.6, T81.83XA)
<input type="checkbox"/> Hemoptysis unspecified (786.3, R04.2)	<input type="checkbox"/> Post-operative air leak (512.2, J95.812)
<input type="checkbox"/> Hyperhidrosis, focal axilla (705.21, L74.510)	<input type="checkbox"/> Secondary malignant neoplasm of other specified sites (198.89, C79.89)
<input type="checkbox"/> Hyperhidrosis, focal, face (705.21, L74.511)	<input type="checkbox"/> Shortness of breath (786.05, R06.02)
<input type="checkbox"/> Hyperhidrosis, focal, palms (705.21, L74.512)	<input type="checkbox"/> Swelling, mass or lump in chest (786.6, R22.2)
<input type="checkbox"/> Lymphadenopathy (785.6, R59.9)	<input type="checkbox"/> Other unlisted category of disease
Other Primary Specify: CategoryPrimOth (1260)	
If diagnosis not listed, free text here: _____	
Other Primary ICD: CategoryPrimOthICD (1270)	
Enter ICD-9 or ICD-10 of unlisted primary diagnosis, if known: _____	
Secondary, Other Secondary Specify: CategorySecondOth (1290)	
If secondary diagnosis not listed, free text here: _____	
Secondary, Other Secondary ICD: CategorySecondOthICD (1300)	
Enter ICD-9 or ICD-10 of unlisted secondary diagnosis, if known : _____	

E. Operative		
Date of Surgery: ____/____/____ SurgDt (1310)		
OR Entry Time: ____:____:____ OREntryT (1320)	Anesthesia Start Time: ____:____:____ AnesthStartT (1340)	Procedure Start Time: ____:____:____ ProcStartT (1360)
OR Exit Time: ____:____:____ ORExitT (1330)	Anesthesia End Time: ____:____:____ AnesthEndT (1350)	Procedure End Time: ____:____:____ ProcEndT (1370)
Multi-Day Operation (operation continued through midnight) <input type="checkbox"/> Yes <input type="checkbox"/> No MultiDay (1380)		
Planned, staged procedure? <input type="checkbox"/> Yes <input type="checkbox"/> No PlanStageProc (1390)		
Status of Operation <input type="checkbox"/> Emergent <input type="checkbox"/> Urgent <input type="checkbox"/> Elective <input type="checkbox"/> Palliative Status (1400)		
Reoperation (any prior cardiothoracic surgery that affects operative field) <input type="checkbox"/> Yes <input type="checkbox"/> No Reop (1410)		Assisted by Robotic Technology <input type="checkbox"/> Yes <input type="checkbox"/> No Robotic (1420)
Surgical Approach Conversion: <input type="checkbox"/> VATS→ Open <input type="checkbox"/> Robotic → VATS <input type="checkbox"/> Robotic→ Open <input type="checkbox"/> No UnanticConv (1430)		
Conversion Type: <input type="checkbox"/> Elective <input type="checkbox"/> Emergent UnanticConvTy (1440)		
If Yes→ Conversion Reason: <input type="checkbox"/> Vascular <input type="checkbox"/> Anatomy <input type="checkbox"/> Lymph Nodes <input type="checkbox"/> Technical UnanticConvRsn (1450)		
Blood transfusion intraoperatively (packed red blood cells) <input type="checkbox"/> Yes <input type="checkbox"/> No IntraopPRBC (1460)		If Yes→ #Red Blood Cell Units: _____ IntraopPRBCNum (1470)
ASA Classification: <input type="checkbox"/> I <i>Normal, healthy</i> ASA (1480)	<input type="checkbox"/> II <i>Mild systemic disease</i>	<input type="checkbox"/> III <i>Severe systemic disease</i>
	<input type="checkbox"/> IV <i>Life threatening severe systemic disease</i>	<input type="checkbox"/> V <i>Moribund, not expected to survive without operation</i>
		<input type="checkbox"/> VI <i>Declared brain dead, organ donor</i>
Check ALL of the procedures performed. Indicate (circle) the Primary Procedure. Proc (1490) Primary (1500)		
Analyzed Procedures		
Lung Cancer Resection		

<input type="checkbox"/> Thoracoscopy, surgical; with lobectomy (32663)	<input type="checkbox"/> Removal of lung, single lobe (lobectomy) (32480)
<input type="checkbox"/> Thoracoscopy with therapeutic wedge resection (eg mass or nodule, initial, unilateral) (32666)	<input type="checkbox"/> Removal of lung, two lobes (bilobectomy) (32482)
<input type="checkbox"/> Thoracoscopy with therapeutic wedge resection(eg mass or nodule) each additional resection, ipsilateral (32667) List separately in addition to primary procedure code	<input type="checkbox"/> Removal of lung, single segment (segmentectomy) (32484)
<input type="checkbox"/> Thoracoscopy with diagnostic wedge resection followed by anatomic lung resection (32668), List separately in addition to primary procedure code	<input type="checkbox"/> Removal of lung, sleeve lobectomy (32486)
<input type="checkbox"/> Thoracoscopy with removal of a single lung segment (segmentectomy) (32669)	<input type="checkbox"/> Removal of lung, completion pneumonectomy (32488)
<input type="checkbox"/> Thoracoscopy with removal of two lobes (bilobectomy) (32670)	<input type="checkbox"/> Resection and repair of portion of bronchus (bronchoplasty) when performed at time of lobectomy or segmentectomy (32501)
<input type="checkbox"/> Thoracoscopy with removal of lung, pneumonectomy (32671)	<input type="checkbox"/> Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, without chest wall reconstruction(s) (32503)
<input type="checkbox"/> Thoracotomy with therapeutic wedge resection (eg mass nodule) initial (32505)	<input type="checkbox"/> Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, with chest wall reconstruction (32504)
<input type="checkbox"/> Removal of lung, total pneumonectomy; (32440)	<input type="checkbox"/> Thoracotomy with therapeutic wedge resection (eg mass nodule) each additional resection, ipsilateral (+32506)List separately in addition to primary procedure code
<input type="checkbox"/> Removal of lung, sleeve (carinal) pneumonectomy (32442)	<input type="checkbox"/> Thoracotomy with diagnostic wedge resection followed by anatomic lung resection (+32507), List separately in addition to primary procedure code
<input type="checkbox"/> Thoracoscopy with mediastinal and regional lymphadenectomy (+32674) List separately in addition to primary procedure code	<input type="checkbox"/> Thoracic lymphadenectomy, regional, including mediastinal and peritracheal nodes (38746)
Esophagus Resection	
<input type="checkbox"/> Transhiatal-Total esophagectomy, without thoracotomy, with cervical esophagogastrostomy (43107)	<input type="checkbox"/> Partial esophagectomy, distal two-thirds, with thoracotomy only (43121)
<input type="checkbox"/> Total esophagectomy without thoracotomy; with colon interposition or small intestine reconstruction (43108)	<input type="checkbox"/> Thoracoabdominal-Partial esophagectomy, thoracoabdominal approach (43122)
<input type="checkbox"/> Three Incision -Total esophagectomy with thoracotomy; with cervical esophagogastrostomy (43112)	<input type="checkbox"/> Partial esophagectomy, thoracoabdominal with colon interposition or small intestine (43123)
<input type="checkbox"/> Total esophagectomy with thoracotomy; with colon interposition or small intestine reconstruction (43113)	<input type="checkbox"/> Total or partial esophagectomy, without reconstruction with cervical esophagostomy (43124)
<input type="checkbox"/> Partial esophagectomy, cervical, with free intestinal graft, including microvascular anastomosis (43116)	<input type="checkbox"/> Minimally invasive three incision esophagectomy (McKeown) (43288)
<input type="checkbox"/> Ivor Lewis-Partial esophagectomy, distal two-thirds, with thoracotomy and separate abdominal incision (43117)	<input type="checkbox"/> Minimally invasive esophagectomy, Ivor Lewis approach (43287)
<input type="checkbox"/> Partial esophagectomy, with thoracotomy and separate abdominal incision with colon interposition or small intestine (43118)	<input type="checkbox"/> Minimally invasive esophagectomy, Abdominal and neck approach (43286)
Hiatal Hernia / GERD Procedures	
<input type="checkbox"/> Laparoscopy, surgical, esophagogastric fundoplasty (e.g., Nissen, Toupet procedures) (43280)	<input type="checkbox"/> Repair, paraesophageal hiatal hernia via laparotomy with mesh (43333)
<input type="checkbox"/> Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) without mesh (43281)	<input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracotomy without mesh (43334)
<input type="checkbox"/> Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) with mesh (43282)	<input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracotomy with mesh (43335)
<input type="checkbox"/> Nissen fundoplasty- laparotomy (includes partial fundoplication/wrap) (43327)	<input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracoabdominal approach without mesh (43336)
<input type="checkbox"/> Transthoracic Fundoplication- open thoracotomy (includes Belsey/Nissen) (43328)	<input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracoabdominal approach with mesh (43337)
<input type="checkbox"/> Repair, paraesophageal hiatal hernia via laparotomy without mesh (43332)	
Tracheal Resection	
<input type="checkbox"/> Carinal reconstruction (31766)	<input type="checkbox"/> Tracheal tumor or carcinoma excision; cervical (31785)
<input type="checkbox"/> Excision tracheal stenosis, cervical (31780)	<input type="checkbox"/> Tracheal tumor or carcinoma excision; thoracic (31786)
<input type="checkbox"/> Excision tracheal stenosis, thoracic (31781)	
Thymus / Mediastinal Mass Resection	
<input type="checkbox"/> Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass (32662)	<input type="checkbox"/> Thymectomy, transcervical approach (60520)
<input type="checkbox"/> Thymus, resection via Thoracoscopy unilateral or bilateral (32673)	<input type="checkbox"/> Thymectomy, transthoracic approach (60521)
<input type="checkbox"/> Mediastinal tumor, excision, open, Transthoracic approach (39220)	<input type="checkbox"/> Thymectomy, transthoracic approach, with radical mediastinal dissection (60522)

Non-analyzed Procedures

Trachea, Bronchi, Larynx

<input type="checkbox"/> Laryngectomy, partial (31370)	
<input type="checkbox"/> Tracheostomy replacement (tube change) prior to est. of fistula tract (31502)	<input type="checkbox"/> Tracheal wound or injury suture repair; cervical (31800)
<input type="checkbox"/> Tracheostomy, planned (31600)	<input type="checkbox"/> Tracheal wound or injury suture repair; intrathoracic (31805)
<input type="checkbox"/> Tracheostomy revision simple, without flap (31613)	<input type="checkbox"/> Unlisted procedure, trachea, bronchi (31899)
<input type="checkbox"/> Tracheostomy revision complex, with flap (31614)	<input type="checkbox"/> Bronchopleural fistula closure (32906)
<input type="checkbox"/> Tracheoplasty; cervical (31750)	<input type="checkbox"/> Bronchogenic cyst removal
<input type="checkbox"/> Tracheoplasty; intrathoracic (31760)	<input type="checkbox"/> Bronchial laceration suture
	<input type="checkbox"/> Bronchial sleeve resection
<input type="checkbox"/> Bronchoplasty, graft repair (31770)	<input type="checkbox"/> Tracheostomy mediastinal
<input type="checkbox"/> Bronchoplasty; excision stenosis and anastomosis (31775)	<input type="checkbox"/> Rigid stent removal

Bronchoscopy

<input type="checkbox"/> Tracheobronchoscopy through established tracheostomy incision (31615)	<input type="checkbox"/> Bronchoscopy, with transbronchial lung biopsy(s), each additional lobe (31632)
<input type="checkbox"/> Endobronchial ultrasound (EBUS) during bronchoscopy diagnostic or therapeutic intervention(s) (31620)	<input type="checkbox"/> Bronchoscopy, with transbronchial needle aspiration biopsy(s), each additional lobe (31633)
<input type="checkbox"/> Bronchoscopy, diagnostic, with or without cell washing (31622)	<input type="checkbox"/> Bronchoscopy, with removal of foreign body (31635)
<input type="checkbox"/> Bronchoscopy, with brushing or protected brushings (31623)	<input type="checkbox"/> Bronchoscopy, with placement of bronchial stent(s) (includes tracheal/bronchial dilation as required), initial bronchus (31636)
<input type="checkbox"/> Bronchoscopy, with bronchial alveolar lavage (BAL) (31624)	<input type="checkbox"/> Bronchoscopy, each additional major bronchus stented (31637)
<input type="checkbox"/> Bronchoscopy, with bronchial or endobronchial biopsy(s), single or multiple sites (31625)	<input type="checkbox"/> Bronchoscopy, with revision of tracheal or bronchial stent inserted at previous session (31638)
<input type="checkbox"/> Bronchoscopy, with placement of Fiducial markers (31626)	<input type="checkbox"/> Bronchoscopy, with excision of tumor (31640)
<input type="checkbox"/> Bronchoscopy, navigational (31627)	<input type="checkbox"/> Bronchoscopy, with destruction of tumor or relief of stenosis by any method other than excision (e.g., laser therapy) (31641)
<input type="checkbox"/> Bronchoscopy, with transbronchial lung biopsy(s), single lobe (31628)	<input type="checkbox"/> Bronchoscopy, with placement of catheter(s) for intracavitary radioelement application (31643)
<input type="checkbox"/> Bronchoscopy, with transbronchial needle aspiration biopsy(s) (31629)	<input type="checkbox"/> Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, initial (drainage of lung abscess) (31645)
<input type="checkbox"/> Bronchoscopy, with tracheal/bronchial dilation or closed reduction of fracture (31630)	<input type="checkbox"/> Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, subsequent (31646)
<input type="checkbox"/> Bronchoscopy, with placement of tracheal stent(s) (includes tracheal/bronchial dilation as required) (31631)	

Pleural Space and Lung

<input type="checkbox"/> Thoracostomy; with rib resection for empyema (32035)	<input type="checkbox"/> Insertion indwelling tunneled pleural catheter (32550)
<input type="checkbox"/> Thoracostomy; with open flap drainage for empyema (32036)	<input type="checkbox"/> Thoracoscopy, diagnostic lungs and pleural space, without biopsy (32601)
<input type="checkbox"/> Thoracotomy with biopsy(s) lung infiltrate(s) (e.g. wedge), unilateral (32096)	<input type="checkbox"/> Thoracoscopy, diagnostic; with biopsy(s) of lung infiltrate(s) (e.g. wedge), unilateral (32607)
<input type="checkbox"/> Thoracotomy with biopsy(s) lung nodule(s) or masses (e.g. incisional), unilateral (32097)	<input type="checkbox"/> Thoracoscopy, diagnostic; with biopsy(s) of lung nodule(s) or mass(es) (eg incisional), unilateral (32608)
<input type="checkbox"/> Thoracotomy with biopsy(s) of pleura (32098)	<input type="checkbox"/> Thoracoscopy, diagnostic; with biopsy(s) of pleura (32609)
<input type="checkbox"/> Thoracotomy, with exploration (32100)	<input type="checkbox"/> Thoracoscopy, surgical; with pleurodesis (e.g., mechanical or chemical) (32650)
<input type="checkbox"/> Thoracotomy, major; with control of traumatic hemorrhage and/or repair of lung tear (32110)	<input type="checkbox"/> Thoracoscopy, surgical; with partial pulmonary decortication (32651)
<input type="checkbox"/> Thoracotomy, major; for postoperative complications (32120)	<input type="checkbox"/> Thoracoscopy, surgical; with total pulmonary decortication (32652)
<input type="checkbox"/> Thoracotomy with open intrapleural pneumolysis (32124)	<input type="checkbox"/> Thoracoscopy, surgical; with removal of intrapleural foreign body or fibrin deposit (32653)
<input type="checkbox"/> Thoracotomy, major; with cyst(s) removal, with or without a pleural procedure (32140)	<input type="checkbox"/> Thoracoscopy, surgical; with control of traumatic hemorrhage (32654)
<input type="checkbox"/> Thoracotomy, major; with excision-plication of bullae, with or without any pleural procedure (32141)	<input type="checkbox"/> Thoracoscopy, surgical; with excision-plication of bullae, including any pleural procedure (32655)
<input type="checkbox"/> Thoracotomy, major; with removal of intrapleural foreign body or hematoma (32150)	<input type="checkbox"/> Thoracoscopy, surgical; with parietal pleurectomy (32656)

<input type="checkbox"/> Thoracotomy with cardiac massage (32160)	<input type="checkbox"/> Thoracoscopy with resection-plication for emphysematous lung (bullous or non-bullous) for lung volume reduction- LVRS, unilateral including any pleural procedure (32672)
<input type="checkbox"/> Decortication, pulmonary, total (32220)	<input type="checkbox"/> Repair lung hernia through chest wall (32800)
<input type="checkbox"/> Pleural scarification for repeat pneumothorax (32215)	<input type="checkbox"/> Closure of chest wall following open flap drainage for empyema (Clagett type procedure) (32810)
<input type="checkbox"/> Decortication, pulmonary, partial (32225)	<input type="checkbox"/> Total lung lavage (for alveolar proteinosis) (32997)
<input type="checkbox"/> Pleurectomy, parietal (32310)	<input type="checkbox"/> Radio-frequency ablation (RFA) lung tumor (32998)
<input type="checkbox"/> Decortication and parietal pleurectomy (32320)	<input type="checkbox"/> Removal of lung, total pneumonectomy; extrapleural (32445)
<input type="checkbox"/> Removal of lung, excision-plication of emphysematous lung(s) for lung volume reduction (LVRS) (32491)	<input type="checkbox"/> Unlisted procedure, lung (32999)
Lung Other Procedures	
<input type="checkbox"/> Open closure of major bronchial fistula (32815)	<input type="checkbox"/> Double lung transplant (32853)
<input type="checkbox"/> Single lung transplant (32851)	<input type="checkbox"/> Double lung transplant with CPB (32854)
<input type="checkbox"/> Single lung transplant with CPB (32852)	<input type="checkbox"/> Thoracoplasty with closure of bronchopleural fistula (32906)
Mediastinum and Diaphragm	
<input type="checkbox"/> Thoracoscopy, diagnostic; mediastinal space, with biopsy (32606)	<input type="checkbox"/> Diaphragmatic hernia repair (other than neonatal), traumatic; acute (39540)
<input type="checkbox"/> Mediastinotomy with exploration or biopsy; cervical approach (39000)	<input type="checkbox"/> Diaphragmatic hernia repair (other than neonatal), traumatic; chronic (39541)
<input type="checkbox"/> Mediastinotomy with exploration or biopsy; transthoracic approach (39010)	<input type="checkbox"/> Diaphragm imbrication (i.e., plication) of (39545)
<input type="checkbox"/> Mediastinal cyst, excision, open, Transthoracic approach (39200)	<input type="checkbox"/> Diaphragm; resection with simple repair (e.g., primary suture) (39560)
<input type="checkbox"/> Mediastinoscopy, with or without biopsy (39400)	<input type="checkbox"/> Diaphragm; resection with complex repair (e.g., prosthetic material, local muscle flap) (39561)
<input type="checkbox"/> Unlisted procedure, mediastinum (39499)	<input type="checkbox"/> Unlisted procedure, diaphragm (39599)
<input type="checkbox"/> Diaphragm, laceration repair, any approach (39501)	
Esophagoscopy	
<input type="checkbox"/> Esophagoscopy (43200)	<input type="checkbox"/> Upper gastrointestinal endoscopy with endoscopic ultrasound examination limited to the esophagus (43237)
<input type="checkbox"/> Esophagoscopy with biopsy (43202)	<input type="checkbox"/> Upper gastrointestinal endoscopy with transendoscopic ultrasound-guided FNA (43238)
<input type="checkbox"/> Esophagoscopy with removal of foreign body (43215)	<input type="checkbox"/> Upper gastrointestinal endoscopy with biopsy (43239)
<input type="checkbox"/> Esophagoscopy with insertion of stent (43219)	<input type="checkbox"/> Upper gastrointestinal endoscopy with dilation of gastric outlet for obstruction (43245)
<input type="checkbox"/> Esophagoscopy with balloon dilation (43220)	<input type="checkbox"/> Upper gastrointestinal endoscopy with directed placement of percutaneous gastrostomy tube (43246)
<input type="checkbox"/> Esophagoscopy with insertion of guide wire followed by dilation over guide wire (43226)	<input type="checkbox"/> Upper gastrointestinal endoscopy with removal of foreign body (43247)
<input type="checkbox"/> Esophagoscopy with ablation of tumor (43228)	<input type="checkbox"/> Upper gastrointestinal endoscopy with insertion of guide wire followed by dilation of esophagus (43248)
<input type="checkbox"/> Esophagoscopy with endoscopic ultrasound examination (EUS) (43231)	<input type="checkbox"/> Upper gastrointestinal endoscopy with balloon dilation of esophagus (43249)
<input type="checkbox"/> Esophagoscopy with transendoscopic ultrasound-guided fine needle aspiration (43232)	<input type="checkbox"/> Upper gastrointestinal endoscopy with transendoscopic stent placement (43256)
<input type="checkbox"/> Upper gastrointestinal endoscopy, diagnostic (43235)	<input type="checkbox"/> Upper gastrointestinal endoscopy with ablation of tumor (43258)
Esophagus Other Procedures	
<input type="checkbox"/> Thoracoscopy, surgical; with esophagomyotomy (Heller type) (32665)	<input type="checkbox"/> Esophagostomy, fistulization of esophagus, external; cervical approach (43352)
<input type="checkbox"/> Cricopharyngeal myotomy (43030)	<input type="checkbox"/> Gastrointestinal reconstruction for previous esophagectomy with stomach (43360)
<input type="checkbox"/> Excision esophageal lesion with primary repair, cervical approach (43100)	<input type="checkbox"/> Gastrointestinal reconstruction for previous esophagectomy with colon interposition or small intestine (43361)
<input type="checkbox"/> Excision Esophageal lesion with primary repair, thoracic approach (eg: leiomyoma) (43101)	<input type="checkbox"/> Suture of esophageal wound or injury; cervical approach (43410)
<input type="checkbox"/> Diverticulectomy of hypopharynx or esophagus, with or without myotomy; cervical approach (43130)	<input type="checkbox"/> Suture of esophageal wound or injury; transthoracic or transabdominal approach (43415)
<input type="checkbox"/> Diverticulectomy of esophagus, with or without myotomy; thoracic approach (43135)	<input type="checkbox"/> Closure of esophagostomy or fistula; cervical approach (43420)

<input type="checkbox"/> Laparoscopic esophageal myotomy (Heller Myotomy, with or without fundoplication) (43279)	<input type="checkbox"/> Total gastrectomy with esophagoenterostomy (43620)
<input type="checkbox"/> Laparoscopy, surgical, esophageal lengthening procedure (Collis) (43283) Secondary Procedure code	<input type="checkbox"/> Total gastrectomy with Roux-en-Y reconstruction (43621)
<input type="checkbox"/> Unlisted laparoscopy, esophagus (43289)	<input type="checkbox"/> Conduit revision s/p esophagectomy
<input type="checkbox"/> Esophagoplasty with repair of TEF, cervical approach (43305)	<input type="checkbox"/> Per oral endoscopic myotomy (POEM)
<input type="checkbox"/> Esophagoplasty with repair TEF, thoracic approach (43312)	<input type="checkbox"/> Trans oral fundoplication
<input type="checkbox"/> Esophagomyotomy (Heller type); thoracic approach (43331)	<input type="checkbox"/> Esophageal lengthening procedure - open (Collis) Secondary Procedure code (43338)
<input type="checkbox"/> Free jejunum transfer with microvascular anastomosis (43496)	<input type="checkbox"/> Ligation or stapling at gastroesophageal junction for esophageal perforation (43405)
<input type="checkbox"/> Unlisted procedure, esophagus (43499)	

Chest Wall and Neck

<input type="checkbox"/> Muscle flap, neck (15732)	<input type="checkbox"/> Radical resection of sternum (21630)
<input type="checkbox"/> Muscle flap; trunk (i.e., intercostal, pectoralis or serratus muscle) (15734)	<input type="checkbox"/> Radical resection of sternum; with mediastinal lymphadenectomy (21632)
<input type="checkbox"/> Excision of chest wall tumor including ribs (19260)	<input type="checkbox"/> Hyoid myotomy and suspension (21685) secondary procedure code
<input type="checkbox"/> Excision of chest wall tumor involving ribs, with reconstruction (19271)	<input type="checkbox"/> Division of scalenus anticus; without resection of cervical rib (21700)
<input type="checkbox"/> Excision tumor, soft tissue of neck or thorax; subcutaneous (21555)	<input type="checkbox"/> Division of scalenus anticus; with resection of cervical rib (21705)
<input type="checkbox"/> Excision tumor, soft tissue of neck or thorax; deep, subfascial, intramuscular (21556)	<input type="checkbox"/> Reconstructive repair of pectus excavatum or carinatum; open (21740)
<input type="checkbox"/> Radical resection of tumor (e.g., malignant neoplasm), soft tissue of neck or thorax (21557)	<input type="checkbox"/> Reconstructive repair of pectus, minimally invasive approach (Nuss procedure), without thoracoscopy (21742)
<input type="checkbox"/> Excision of rib, partial (21600)	<input type="checkbox"/> Open treatment of sternum fracture with or without skeletal fixation (21825)
<input type="checkbox"/> Excision first and/or cervical rib (21615)	<input type="checkbox"/> Removal of sternal wire(s)
<input type="checkbox"/> Excision first and/or cervical rib; with sympathectomy (21616)	<input type="checkbox"/> Reconstructive repair of pectus, minimally invasive approach (Nuss procedure), with thoracoscopy (21743)
<input type="checkbox"/> Major reconstruction, chest wall (posttraumatic) (32820)	<input type="checkbox"/> Unlisted procedure, neck or thorax (21899)

Miscellaneous

<input type="checkbox"/> Thoracoscopy, diagnostic pericardial sac, with biopsy (32604)	<input type="checkbox"/> SVC resection and reconstruction (34502)
<input type="checkbox"/> Thoracoscopy, surgical; with removal of clot or foreign body from pericardial sac (32658)	<input type="checkbox"/> Ligation thoracic duct (38381)
<input type="checkbox"/> Thoracoscopy, surgical; with creation of pericardial window or partial resection of pericardial sac for drainage (32659)	<input type="checkbox"/> Intraoperative jejunostomy (44015)
<input type="checkbox"/> Thoracoscopy, surgical; with total pericardiectomy (32660)	<input type="checkbox"/> Omental flap (49904)
<input type="checkbox"/> Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass (32661)	<input type="checkbox"/> Transthoracic thyroidectomy (60270)
<input type="checkbox"/> Thoracoscopy, surgical; with thoracic sympathectomy (32664)	<input type="checkbox"/> Removal substernal thyroid, cervical approach (60271)
<input type="checkbox"/> Stereotactic radiosurgery (SRS) and stereotactic body radiotherapy (SBRT),surgeon participation (32701)	<input type="checkbox"/> Application of wound vac (97605, 97606)
<input type="checkbox"/> Tube pericardiostomy (33015)	<input type="checkbox"/> Pericardial window (33025)
<input type="checkbox"/> Other Minor Procedure	<input type="checkbox"/> Other

Enter Name of unlisted Procedure(s):

[ProcOth \(1510\)](#)

Enter 5 digit CPT code(s) of unlisted procedure, if known:

[ProcOthCPT \(1520\)](#)

Surgical Procedure for Lung Cancer or Suspected Lung Cancer? LungCancer (1580)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>if yes, complete Section F</i>
Surgical Procedure for Esophageal Cancer? EsophCancer (1590)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>if yes, complete Section G</i>
Are you collecting data for Thymus / Mediastinal Mass Resection? ThymusMediastinalData (1600)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>if yes, complete Section H</i>
Are you collecting data for Tracheal Resection? TrachealData (1610)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>if yes, complete Section I</i>
Are you collecting data for Hiatal Hernia / GERD? HiatalHerniaData (1620)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>if yes, complete Section J</i>

F. Lung Cancer		
Diagnosis:		
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) LungCancerSus (1630) <input type="checkbox"/> Yes <input type="checkbox"/> No		
How was lung cancer diagnosed?		
Bronchoscopy ClinStagLungBronc (1640) <input type="checkbox"/> Yes <input type="checkbox"/> No	Needle Biopsy Attempted or Completed ClinStagLungNeedle (1650) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Clinical Staging: Pre-treatment Lung cancer staging- to be completed if lung cancer suspected or documented AND lung resection performed. Clinical staging determines the treatment plan.		
Clinical Staging Done ClinStagDoneLung (1660) <input type="checkbox"/> Yes <input type="checkbox"/> No		
If Yes→	Pre-Op Positive Tissue diagnosis Obtained PreopPosTisOb (1670) <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Clinical Staging Methods : Choose all that apply	
	Radiographic Staging Procedures	
	PET or PET/CT ClinStagLungPET (1680) <input type="checkbox"/> Yes <input type="checkbox"/> No	Brain CT Scan ClinStagLungBrainCT (1700) <input type="checkbox"/> Yes <input type="checkbox"/> No
	CT ClinStagLungCT (1690) <input type="checkbox"/> Yes <input type="checkbox"/> No	Brain MRI ClinStagLungBMRI (1710) <input type="checkbox"/> Yes <input type="checkbox"/> No
	Was invasive mediastinal staging performed? ClinStagInvasive (1720) <input type="checkbox"/> Yes, reason documented <input type="checkbox"/> Yes, reason not documented <input type="checkbox"/> No If Documented → Operative/Clinic Note indicates Invasive Mediastinal Staging performed for the following reasons: (check all that apply)	
	Lesion size > 3cm ClinStagInvasiveSize (1730) <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Mediastinal Lymphadenopathy on CT > 1cm ClinStagInvasiveLymphCT (1740) <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Ipsilateral hilar mediastinal node FDG uptake on PET ClinStagInvasiveHilar (1750) <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Central Tumor ClinStagInvasiveTumor (1760) <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Other ClinStagInvasiveOther (1770) <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Mediastinal Tissue Sampling/Staging	
	EBUS ClinStagLungEBUS (1780) <input type="checkbox"/> Yes <input type="checkbox"/> No	VATS ClinStagLungVATS (1790) <input type="checkbox"/> Yes <input type="checkbox"/> No
	EUS ClinStagLungEUS (1800) <input type="checkbox"/> Yes <input type="checkbox"/> No	Other ClinStagLungOth (1810) <input type="checkbox"/> Yes <input type="checkbox"/> No
	Mediastinoscopy/Chamberlain ClinStagLungMedia (1830) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Tumor size known? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes ↓ LungCaTumSzKnown (1850)		
Lung CA tumor size in cm (the dominant/most concerning lesion per CT Scan) LungCaTumSz (1860) _____ cm (ex. 2.3cm)		
Invasion of Adjacent Structures LCInvAdjStr (1870) <input type="checkbox"/> Yes <input type="checkbox"/> No		
Lung CA T Stage (tumor stage) ClinStageLungTumor (1880) <input type="checkbox"/> Tis <input type="checkbox"/> T1 <input type="checkbox"/> T2 <input type="checkbox"/> T3 <input type="checkbox"/> T4		
Lung CA Nodes: ClinStageLungN (1890)	<input type="checkbox"/> N0 No regional lymph node metastasis <input type="checkbox"/> N1 Metastasis in ipsilateral peribronchial or hilar and intrapulmonary nodes. Includes direct extension. <input type="checkbox"/> N2 Metastasis in ipsilateral mediastinal and/or subcarinal lymph nodes <input type="checkbox"/> N3 Metastasis in contralateral mediastinal or contralateral hilar nodes, ipsilateral or contralateral scalene or supraclavicular nodes	
Lung CA Metastases: ClinStageLungM (1900)	<input type="checkbox"/> M0 No distant metastasis <input type="checkbox"/> M1 Distant Metastasis	

Lung - FINAL Pathological Staging

To be completed if lung cancer suspected or documented **AND** lung resection performed. (8th Edition)

Lung Cancer Results

ClinStageLungResult (1910)

No cancer found, benign tumor Lung Cancer Tumor present:

If Cancer Tumor Present → PathStageLungT (1920)	<input type="checkbox"/> TX Primary Tumor cannot be assessed, or tumor proven by the presence of malignant cells in sputum or bronchial washings but not visualized by imaging or bronchoscopy	<input type="checkbox"/> T0 No evidence of primary tumor	<input type="checkbox"/> Tis Carcinoma in situ; squamous cell carcinoma in situ (SCIS); Adenocarcinoma in situ (AIS): adenocarcinoma with pure lepidic pattern, ≤3 cm in greatest dimension
	<input type="checkbox"/> T1mi Minimally invasive adenocarcinoma: adenocarcinoma (≤3 cm in greatest dimension) with a predominantly lepidic pattern and ≤5 mm invasion in greatest dimension.	<input type="checkbox"/> T1a Tumor ≤1 cm in greatest dimension. A superficial, spreading tumor of any size whose invasive component is limited to the bronchial wall and may extend proximal to the main bronchus also is classified as T1a, but these tumors are uncommon.	<input type="checkbox"/> T1b Tumor > 1 cm but ≤ 2 cm in greatest dimension
	<input type="checkbox"/> T1c Tumor > 2 cm but ≤ 3 cm in greatest dimension	<input type="checkbox"/> T2a Tumor > 3 cm but ≤ 4 cm at greatest dimension, or having any of the following features: 1. involves the main bronchus regardless of distance to the carina, 2. but without involvement of the carina; invades visceral pleura (PL1 or PL2); 3. associated with atelectasis or obstructive pneumonitis that extends to the hilar region, involving part or all of the lung.	<input type="checkbox"/> T2b Tumor > 4 cm but ≤ 5 cm at greatest dimension
	<input type="checkbox"/> T3 Tumor > 5 cm but ≤ 7 cm in greatest dimension or directly invading any of the following: parietal pleura (PL3), chest wall (including superior sulcus tumors), phrenic nerve, parietal pericardium; or separate tumor nodule(s) in the same lobe as the primary	<input type="checkbox"/> T4 Tumor > 7 cm or tumor of any size invading one or more of the following: diaphragm, mediastinum, heart, great vessels, trachea, recurrent laryngeal nerve, esophagus, vertebral body, or carina; separate tumor nodule(s) in an ipsilateral lobe different from that of the primary	
If tumor is T2a or T2b → Visceral Pleura Invasion <input type="checkbox"/> Yes <input type="checkbox"/> No VisPleuralInv (1930)			
Lung CA Nodes: PathStageLungN (1940)	<input type="checkbox"/> NX Regional lymph nodes cannot be assessed	<input type="checkbox"/> N0 No regional lymph node metastasis	<input type="checkbox"/> N1 Metastasis in ipsilateral peribronchial and/or ipsilateral hilar lymph nodes and intrapulmonary nodes, includes involvement by direct extension
	<input type="checkbox"/> N2 Metastasis in ipsilateral mediastinal and/or subcarinal lymph node(s)	<input type="checkbox"/> N3 Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene or supraclavicular lymph node(s)	
If N2 → Multi-station N2 <input type="checkbox"/> Yes <input type="checkbox"/> No PathStageLungMultiN2 (1950)			
Lung CA Metastases: PathStageLungM (1960)	<input type="checkbox"/> M0 No distant metastasis	<input type="checkbox"/> M1 Distant metastasis	
Lung CA Histology: LungCAHist (1970)	<input type="checkbox"/> Carcinoma in situ- <input type="checkbox"/> Small cell <input type="checkbox"/> Other	<input type="checkbox"/> Adenocarcinoma <input type="checkbox"/> Low Grade Neuroendocrine (typical carcinoid)	<input type="checkbox"/> Squamous cell <input type="checkbox"/> Intermediate grade neuroendocrine, atypical carcinoid <input type="checkbox"/> Large cell <input type="checkbox"/> Mixed
Grade: LungCAHistGrade (1980)	<input type="checkbox"/> Low grade (well differentiated)	<input type="checkbox"/> Intermediate grade	<input type="checkbox"/> High grade (poorly differentiated) <input type="checkbox"/> Unknown / Not reported
Total # of Lymph Nodes sampled/harvested: LungCANodes (1990)	Total # of Nodal Stations sampled/harvested: _____ LungCANodStat (2000)		

	Lung CA Resection Margins Positive: LungCAPathMarg (2010)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>If Yes→</i> LungCAPath MargPosR (2020)	<input type="checkbox"/> R1 (microscopic residual tumor present)	<input type="checkbox"/> R2 (macroscopic (gross) residual tumor present)
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G. Esophageal Cancer

Clinical Staging: Pre-treatment Esophageal cancer staging - to be completed if esophageal cancer suspected, documented OR esophagus resection performed. Clinical staging determines the treatment plan.

Clinical Staging Done ClinStagDoneEsoph (2030) Yes No

Radiologic / Endoscopic Staging Procedures

<i>If Clinical Staging Done is Yes →</i>	PET or PET/CT ClinStagEsophPET (2040)	<input type="checkbox"/> Yes <input type="checkbox"/> No	CT ClinStagEsophCT (2050)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Bronchoscopy ClinStagEsophBronc (2060)	<input type="checkbox"/> Yes <input type="checkbox"/> No	EUS ClinStagEsophEUS (2090)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Invasive Staging Procedures

	VATS – for staging ClinStagEsophVATS (2100)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Laparoscopy – for staging ClinStagEsophLap (2110)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Endoscopic Mucosal Resection ClinStagEsophEMR (2120)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other: <input type="checkbox"/> Yes <input type="checkbox"/> No ClinStagEsophOth (2130)	
	Esophageal Tumor: ClinStageEsophT (2150)	<input type="checkbox"/> T0 No evidence of primary tumor <input type="checkbox"/> T2 Tumor invades muscularis propria	<input type="checkbox"/> Tis High grade dysplasia <input type="checkbox"/> T3 Tumor invades adventitia	<input type="checkbox"/> T1 Tumor invades lamina propria, mucosa or submucosa <input type="checkbox"/> T4 Tumor invades adjacent structures
	Clinical Diagnosis of Nodal Involvement: ClinStageEsophNode (2160)	<input type="checkbox"/> Yes (N1, N2 or N3)	<input type="checkbox"/> No	
	Esophageal CA Metastases ClinStageEsophM (2170)	<input type="checkbox"/> M0 No Distant Metastasis	<input type="checkbox"/> M1 Distant Metastasis	

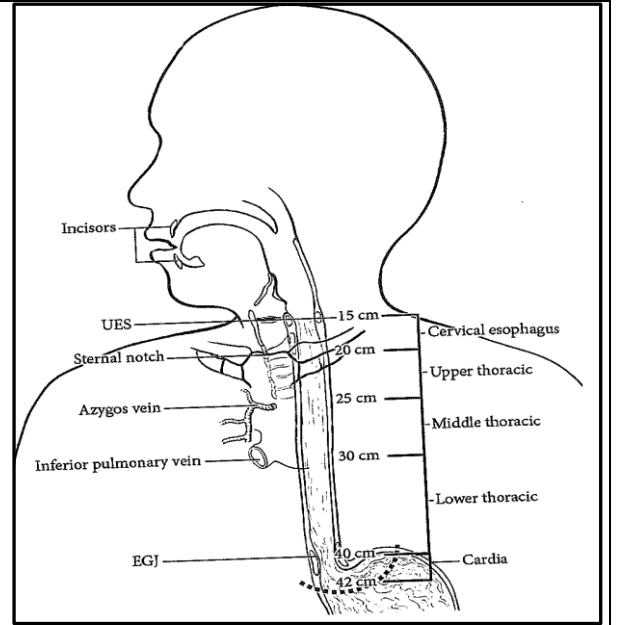
Tumor Location (check all that apply):

Cervical Esophagus (15 – < 20 cm) Yes No
 TumorEsopCervical (2180)

Upper Thoracic (20 - < 25 cm) Yes No
 TumorEsopUpThorac (2190)

Middle Thoracic (25 - < 30 cm) Yes No
 TumorEsopMidThorac (2200)

Lower Thoracic, including EG Junction (30 – 42 cm) Yes No
 TumorEsopLowThorac (2210)



Pathological Staging - Esophagus

Esophagus to be completed if esophageal cancer documented AND esophageal resection performed (Pre-Operative Evaluation – Esophageal Cancer = Yes) (8th Edition)

Esophageal Cancer Results ClinStageEsophResult (2220)

No cancer found, benign tumor Esophageal cancer present

If cancer present →	Esophageal Tumor: PathStageEsophT (2230)			
	<input type="checkbox"/> TX Tumor cannot be assessed	<input type="checkbox"/> T0 No evidence of primary tumor	<input type="checkbox"/> Tis High Grade dysplasia, defined as malignant cells confined to the epithelium by the basement membrane	
	<input type="checkbox"/> T1a Tumor invades lamina propria or muscularis mucosa	<input type="checkbox"/> T1b Tumor invades submucosa	<input type="checkbox"/> T2 Tumor invades muscularis propria	
	<input type="checkbox"/> T3 Tumor invades adventitia	<input type="checkbox"/> T4a Tumor invades pleura, pericardium, azygos vein, diaphragm or peritoneum	<input type="checkbox"/> T4b Tumor invades other adjacent structures such as aorta, vertebral body, or airway.	
	Esophageal CA Nodes: PathStageEsophN (2240)			
	<input type="checkbox"/> NX Regional lymph nodes cannot be assessed	<input type="checkbox"/> N0 No regional lymph node metastasis	<input type="checkbox"/> N1 Metastasis in 1-2 regional nodes	
		<input type="checkbox"/> N2 Metastasis in 3-6 regional lymph nodes	<input type="checkbox"/> N3 Metastasis in 7 or more regional lymph nodes	
Esophageal CA Metastases: PathStageEsophM (2250)				
	<input type="checkbox"/> M0 No distant metastasis	<input type="checkbox"/> M1 Distant metastasis		
Esoph Histopathologic Type: PathStageEsophH (2260)				
	<input type="checkbox"/> H1 Squamous Carcinoma	<input type="checkbox"/> H2 Adenocarcinoma	<input type="checkbox"/> Other	
Esophageal CA Histologic Grade: PathStageEsophG (2270)				
	<input type="checkbox"/> GX Grade cannot be assessed	<input type="checkbox"/> G1 Well differentiated	<input type="checkbox"/> G2 Moderately differentiated	<input type="checkbox"/> G3 Poorly differentiated, undifferentiated
Total # of Lymph Nodes sampled/harvested: _____ EsophCANodes (2280)		Esophageal CA Resection Margins Positive: <input type="checkbox"/> Yes <input type="checkbox"/> No EsophCAPathMarg (2290)		

H. Thymus / Mediastinal Mass Resection

Pre-Operative

Symptomatic myasthenia Yes No
MyastheniaSympt (2300)

If Yes → Chronic Medical Treatment:

Mestinon TxMestinon (2310)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Steroids TxSteroids (2320)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other Immunosuppressive Therapy TxImmunoSuppress (2330)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Pre-operative management

IVIG
IVIG (2340) Yes No

Plasmapheresis
Plasmapheresis (2350) Yes No

Size of mass known: Yes No MassSizeKnown (2360)

If yes → Largest diameter in mm derived from preop axial, coronal or sagittal image _____ mm MassSize (2370)

Initial Surgical Approach ThyInitSurgAp (2380)

<input type="checkbox"/> Full Sternotomy	<input type="checkbox"/> Clamshell or Hemiclamsell	<input type="checkbox"/> Transcervical
<input type="checkbox"/> Partial Sternotomy	<input type="checkbox"/> Robotic	<input type="checkbox"/> VATS

If "Robotic" or "VATS" → Location: Right Left Bilateral
ThyRobVATSLoc (2390)

If "Transcervical", "Partial Sternotomy", "Robotic" or "VATS" → Conversion to open approach during procedure?

ThyConvToOpen (2400)		<input type="checkbox"/> Yes, Planned	<input type="checkbox"/> Yes, Unplanned	<input type="checkbox"/> No
		If Yes → ThyConvA p (2410)		
		<input type="checkbox"/> Sternotomy	<input type="checkbox"/> Clamshell	<input type="checkbox"/> Thoracotomy
Intentional resection of functioning phrenic nerve PhrenicNerveResect (2420)		<input type="checkbox"/> Yes <input type="checkbox"/> No		
Pathologic Staging PathRptStage (2430)				
<input type="checkbox"/> Stage I Grossly and microscopically encapsulated. Also called a noninvasive thymoma. That is, it has not spread beyond the thymus.	<input type="checkbox"/> Stage II The thymoma invades beyond the capsule (outer boundary of the thymus) and into the nearby fatty tissue or to the pleura (outer covering of the lung). Sometimes divided into:	<input type="checkbox"/> Stage IIa Microscopic transcapsular invasion	<input type="checkbox"/> Stage IIb Macroscopic capsular invasion	
<input type="checkbox"/> Stage III Macroscopic invasion of neighboring organs. The thymoma extends into the neighboring tissues or organs of the lower neck or upper chest area, including the pericardium (covering of the heart), the lungs, or the main blood vessels leading into or exiting from the heart.	<input type="checkbox"/> Stage IVa Pleural or pericardial dissemination. The thymoma has spread widely throughout the pleura and/or pericardium.	<input type="checkbox"/> Stage IVb Hematogenous or lymphatic dissemination. The thymoma has spread to distant organs.		
WHO classification (from path report – Thymoma only) ThymomaType (2440)				
<input type="checkbox"/> Type A <input type="checkbox"/> Type AB <input type="checkbox"/> Type B1 <input type="checkbox"/> Type B2 <input type="checkbox"/> Type B3 <input type="checkbox"/> Thymic Carcinoma or Type C <input type="checkbox"/> Not Thymoma				
Completeness of resection (from operative note or pathology report) ResectCompleteness (2450)				
<input type="checkbox"/> R0 <input type="checkbox"/> R1 <input type="checkbox"/> R2				
Patient alive at 30 days post op <input type="checkbox"/> Yes <input type="checkbox"/> No PtAlive30Day (2460)				
If Yes → Post – operative Event (30 day)				
Myasthenic crisis requiring return to ICU or intervention (intubation, plasmapheresis) MYAL (2470) <input type="checkbox"/> Yes <input type="checkbox"/> No				
Unintentional phrenic nerve palsy PhrenicNervePalsy (2480) <input type="checkbox"/> Yes <input type="checkbox"/> No				
Patient alive at 90 days post op <input type="checkbox"/> Yes <input type="checkbox"/> No PtAlive90Day (2490)				
If Yes → 90 Day Post – Operative Variable				
Adjuvant thoracic radiation ThoracicRadiation (2500) <input type="checkbox"/> Yes <input type="checkbox"/> No				
Persistent unintentional phrenic nerve palsy PhrenNrvPalsyPersis (2510) <input type="checkbox"/> Yes <input type="checkbox"/> No				

I. Tracheal Resection				
Pre-Operative				
Current Airway AirwayCurr (2520)	<input type="checkbox"/> Native	<input type="checkbox"/> Oral ETT	<input type="checkbox"/> Trach	<input type="checkbox"/> T-Tube
Prior tracheostomy TracheostomyPrior (2530)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Prior intubation IntubatePrior (2540)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Prior Tracheal Resection TrachealResectPrior (2550)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Recent Bronchoscopic Intervention (within 6 weeks) BronchInt6Wks (2560)				
<input type="checkbox"/> Yes <input type="checkbox"/> No (includes: core out, dilation, ablation, stent)				
Recurrent nerves intact RecurrNervesIntact (2570) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown				
If not intact → RecurrNervNotIntact (2580) Which nerve? <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both				
Airway management during resection (check all that apply)				
Cross – table ventilation CrossTableVent (2590)	<input type="checkbox"/> Yes <input type="checkbox"/> No	VA ECMO VaECMO (2600)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Jet ventilation JetVent (2610) <input type="checkbox"/> Yes <input type="checkbox"/> No
VV ECMO VvECMO (2620)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Cardiopulmonary bypass CardoPulmBypass (2630)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Incision (check all that apply, must have at least one indicated)				

Cervical <input type="checkbox"/> Yes <input type="checkbox"/> No TrachIncisCerv (2640)	Partial sternotomy <input type="checkbox"/> Yes <input type="checkbox"/> No TrachIncisPartStern (2650)	Full sternotomy <input type="checkbox"/> Yes <input type="checkbox"/> No TrachIncisFullStern (2660)
Right thoracotomy <input type="checkbox"/> Yes <input type="checkbox"/> No TrachIncisRight (2670)	Clamshell <input type="checkbox"/> Yes <input type="checkbox"/> No TrachIncisClam (2680)	
Length of tracheal resection _____ mm (Surgical or pathological measurement acceptable) TrachealResectLen (2690)		
Cricoid resection required <input type="checkbox"/> Yes <input type="checkbox"/> No CricoidResect (2700)		
Carinal resection required <input type="checkbox"/> Yes <input type="checkbox"/> No CarinalResect (2710)		
Release Maneuvers <input type="checkbox"/> Yes <input type="checkbox"/> No ReleaseManeuver (2720) If yes → ReleaseManeuverT <input type="checkbox"/> Suprahyoid <input type="checkbox"/> Suprathyroid <input type="checkbox"/> Hilar ype (2730)		
Additional Post-Operative Events		
Anastomotic dehiscence requiring drainage, revision, stent, tracheostomy, T-tube AnastomoticDehiscen (2740)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Anastomotic stricture requiring intervention AnastomoticStricture (2750)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Airway obstruction requiring intervention (e.g., unscheduled bronchoscopy) AirwayObstruct (2760)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Recurrent nerve palsy NervePalsyRecurr (2770)	<input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both <input type="checkbox"/> Neither	
Did the patient leave the hospital with tracheal appliance? (tracheostomy, T-tube or stent) TrachealAppliance (2780)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Patient Died In Hospital	
At 30 Days Post – Operative Patient is:		
Stent/tube free StentTubeFree30days (2790) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Patient Died Within 30 Days of Procedure		
At 90 Days Post – Operative Patient is:		
Stent/tube free StentTubeFree90days (2800) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Patient Died Within 90 Days of Procedure		

J. Hiatal Hernia / GERD			
Symptoms			
Heartburn Heartburn (2810)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Cough Cough (2820)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Regurgitation Regurgitate (2830)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Hoarseness Hoarse (2840)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Dysphagia Dysphagia (2850)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Sore throat SoreThroat (2860)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Epigastric/chest pain Ephigastric (2870)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Asthma Asthma (2880)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Early satiety EarlySatiety (2890)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Reflux laryngitis RefluxLaryngitis (2900)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Anemia Anemia (2910)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
PPIs			
PPI use PPIUse (2920)	<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes → PPI relief PPIRelief (2930)	<input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> No
EGD			
Esophagitis Esophagitis (2940)	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes →	LA Grade: LAGrade (2950)	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
Barrett's metaplasia MetaplasiaBarrett (2960) <input type="checkbox"/> Yes, with low grade dysplasia <input type="checkbox"/> Yes, with high grade dysplasia <input type="checkbox"/> No			
pH Testing pHTest (2970)	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes ↓	Manometry	
DeMeester score DeMeesterScore (2980)	_____	Manometry performed: Manometry (2990)	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes → Motility: Motility (3000) <input type="checkbox"/> normal <input type="checkbox"/> decreased <input type="checkbox"/> aperistalsis
LES resting pressure _____ RestPressure (3010)		% of failed swallows _____ SwallowFail (3020)	
Imaging			
Imaging performed ImagePerform (3030)	<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes → Type of imaging ImageType (3040)	<input type="checkbox"/> bariums swallow/ upper GI <input type="checkbox"/> CT Scan <input type="checkbox"/> CXR

Hiatal hernia size (cm) HerniaSize (3050) _____		Hiatal hernia type: HerniaType (3060) <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	
Hernia repair status <input type="checkbox"/> Primary repair <input type="checkbox"/> Re-operation HerniaRepStat (3065) <i>If re-operation →</i> Surgical approach used in the initial procedure: <input type="checkbox"/> Laparoscopic <input type="checkbox"/> Laparotomy <input type="checkbox"/> Thoracotomy <input type="checkbox"/> Not documented HerniaReopApp (3066)			
Procedure Approach (check all that apply)			
Laparoscopic GERDAppLaparoscopic (3070) <input type="checkbox"/> Yes <input type="checkbox"/> No		Robotic GERDAppRobotic (3080) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Laparotomy GERDAppLaparotomy (3090) <input type="checkbox"/> Yes <input type="checkbox"/> No		Thoracotomy GERDAppThor (3100) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Fundoplication ProcFundoplicate (3110) <input type="checkbox"/> Yes <input type="checkbox"/> No		<i>If Yes →</i> Type FundoplicateType (3120) <input type="checkbox"/> Partial <input type="checkbox"/> Complete	
Gastroplasty ProcGastroplasty (3130) <input type="checkbox"/> Yes <input type="checkbox"/> No			
Mesh ProcMesh (3140) <input type="checkbox"/> Yes <input type="checkbox"/> No			
Relaxing incision ProcRelaxIncision (3150) <input type="checkbox"/> Yes <input type="checkbox"/> No			
Is patient alive at 1 month post – Op? GERDPtAliveMth (3160) <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes →</i> 1 Month Post – Operative Follow Up		Is patient alive at 1 year post – Op? GERDPtAliveYr (3210) <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes →</i> 1 Year Post – Operative Follow Up	
Radiographic recurrence RadiographRecurr1Mon (3170) <input type="checkbox"/> Yes <input type="checkbox"/> No		Radiographic recurrence RadiographRecurr1Year (3220) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Symptomatic recurrence SymptomRecurr1Mon (3180) <input type="checkbox"/> Yes <input type="checkbox"/> No		Symptomatic recurrence SymptomRecurr1Year (3230) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Endoscopic Intervention EndoInt1Mon (3190) <input type="checkbox"/> Yes <input type="checkbox"/> No		Endoscopic Intervention EndoInt1Year (3240) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Redo Operation RedoOperate1Mon (3200) <input type="checkbox"/> Yes <input type="checkbox"/> No		Redo operation RedoOperate1Year (3250) <input type="checkbox"/> Yes <input type="checkbox"/> No	

K. Disposition			
Patient Disposition: PatDisp (3260)		<input type="checkbox"/> ICU <input type="checkbox"/> Intermediate Care Unit <input type="checkbox"/> Regular Floor Bed <input type="checkbox"/> Not Applicable (Expired in OR) <input type="checkbox"/> Outpatient or Observation Status	
ICU Admit this admission: <input type="checkbox"/> Yes <input type="checkbox"/> No ICUVisitInit (3270) <i>If Yes →</i> Initial ICU Days: _____ ICUVisitInitDays (3280) ICU Readmit: <input type="checkbox"/> Yes <input type="checkbox"/> No ICUVisitAdd (3290) <i>If Yes →</i> Additional ICU Days: _____ ICUVisitAddDays (3300)			

L. Post-Operative Events			
Indicate all adverse events that occurred within 1 month of surgery if discharged from the hospital <u>or</u> those that occur during the same admission, regardless of the length of stay.			
Postoperative Events? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, select all that occurred: ↓</i> POEvents (3310)			
<i>If Post-Operative Events Yes →</i>	Unanticipated post-operative invasive procedure? <input type="checkbox"/> Yes <input type="checkbox"/> No PostOpInvProc (3330)		
	<i>If unanticipated post-operative invasive procedure →</i>	Primary Reason for Procedure: ReturnORRsn (3340) <input type="checkbox"/> Bleeding <input type="checkbox"/> Bronchopleural Fistula <input type="checkbox"/> Empyema <input type="checkbox"/> Middle lobectomy for torsion <input type="checkbox"/> Conduit necrosis/failure following esophageal surgery <input type="checkbox"/> Other	
		Anastomotic leak following esophageal surgery PosOpProcAL (3350) <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes →</i>	Surgical drainage and repair PosOpProcALRepair (3360) <input type="checkbox"/> Yes <input type="checkbox"/> No Stent placement PosOpProcALStent (3370) <input type="checkbox"/> Yes <input type="checkbox"/> No Additional chest tube placement PosOpProcALTube (3380) <input type="checkbox"/> Yes <input type="checkbox"/> No

	Chylothorax Present <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes →</i> ChyloPres (3390)	Chylothorax req. surgical ligation of thoracic duct <input type="checkbox"/> Yes <input type="checkbox"/> No PosOpProcChylotho (3400) <i>If No → Thoracic duct embolization attempted <input type="checkbox"/> Yes <input type="checkbox"/> No</i> PosOpProcEmboli (3410) <i>If Yes → Was Thoracic duct embolization successful? <input type="checkbox"/> Yes <input type="checkbox"/> No</i> PosOpProcDuctSucc (3420)			
Pulmonary					
Air leak > 5 days duration AirLeak5 (3430)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Atelectasis req. bronchoscopy Atelectasis (3440)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Pleural Effusion req. drainage CPiEff (3450)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pneumonia Pneumonia (3460)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Acute Respiratory Distress Syndrome (ARDS) ARDS (3470)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Respiratory Failure RespFail (3480)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Bronchopleural Fistula Bronchopleural (3490)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Pulmonary Embolus PE (3500)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Pneumothorax req. CT reinsertion Pneumo (3510)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Initial Vent Support > 48 Hr Vent (3520)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Tracheostomy Trach (3530)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other Pulmonary Event OtherPul (3550)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Cardiovascular					
Atrial arrhythmia req. treatment AtrialArryth (3560)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Ventricular arrhythmia req. treatment VentArryth (3570)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Myocardial infarct MI (3580)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Deep venous thrombosis (DVT) req. treatment DVT (3590)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other CV event OtherCV (3600)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Gastrointestinal					
Ileus Ileus (3610)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Anastomotic leak requiring medical treatment only AnastoMed (3620)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Dilation esophagus DilationEsoph (3630)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Conduit Necrosis Requiring Surgery CondNecSurg (3640)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Delayed conduit emptying requiring intervention (pyloric dilatation or botox) or maintenance of NG drainage > 7days post op DelayCondEmp (3650)			<input type="checkbox"/> Yes <input type="checkbox"/> No
Clostridium Difficile infection CDiff (3660)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other GI event OtherGI (3670)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Hematology					
Packed red blood cells PostopPRBC (3680)	<input type="checkbox"/> Yes <input type="checkbox"/> No	*transfusions documented here do not include blood given in OR*		<i>If Yes → # Units _____</i> PostopPRBCUnits (3690)	
Urologic					
Urinary tract infection UTI (3700)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Urinary retention req. Catheterization UrinRetent (3710)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Discharged with Foley catheter DischFoley (3720)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Infection					
Empyema req. treatment Empyema (3730)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Surgical Site Infection SurgSiteInfect (3740)	<input type="checkbox"/> None <input type="checkbox"/> Superficial <input type="checkbox"/> Deep <input type="checkbox"/> Organ space		
Sepsis Sepsis (3750)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Another infection req. IV antibiotics OtherInfect (3760)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Neurology					

New central neurological event CentNeuroEvt (3770)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Recurrent laryngeal nerve paresis -unexpected LaryngealNerve (3780)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Delirium Delirium (3790)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other neurological event OtherNeuro (3800)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Miscellaneous			
New renal failure per RIFLE criteria RenFailRIFLE (3810)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Chylothorax req. medical intervention ChyloMed (3820)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other events req. OR with gen. anesthesia OtherSurg (3830)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Unexpected Admission to ICU UnexpectAdmitICU (3840)	<input type="checkbox"/> Yes <input type="checkbox"/> No

M. Discharge

Patient is still in the hospital Yes No **StillInHosp (3860)**

If No →

Date of Discharge: **DischDt (3870)** ____/____/____

Discharge Status: **MtDCStat (3880)** Alive Dead

If Discharged Alive →

Discharge location:
DisLoctn (3890)

Home Extended Care/Transitional Care Unit /Rehab
 Other Hospital Nursing Home Hospice Other

Discharged with chest tube:
CTubeDis (3900) Yes No

Discharged with home O2 (new; not using O2 pre-op) Yes No
DischHomeO2 (3910)
If Yes → On O2 at 30 days postoperative? Yes No Unknown Patient Died Within 30 Days Post Op
OnOxygen30DayPOp (3920)

Readmit to any hospital within 30 days of discharge: Yes No Unknown
Readm30Dis (3930)
If Yes → Readmission related to operative procedure? Yes No Unknown
Readm30DisRel (3940)

Status at 30 days after surgery: **Mt30Stat (3950)** Alive Dead Unknown

N. Follow Up

Date of Last Follow-Up: ____/____/____
LFUDate (3960)

Mortality Status at Last Follow-Up: Alive Dead
LFUMortStat (3970)

Mortality Date: ____/____/____
MortDate (3980)

O. Quality Measures

IV antibiotics ordered to be given within 1 hour before incision: Yes No Not indicated for procedure
IVAntibioOrdered (3990)

IV antibiotics given within 1 hour before incision: Yes No Not indicated for procedure
IVAntibioGiven (4000)

Cephalosporin Antibiotic Ordered Yes No Not indicated for procedure Documented allergy or indication for therapeutic substitution
CephalAntiOrdered (4010)

Prophylactic Antibiotic Discontinuation Ordered within 24 hour Yes No Not indicated for procedure No, due to documented infection
AntibioticDiscOrdered (4020)

Smoking Cessation Counseling Yes No Patient refused Nonsmoker
SmokCoun (4030)

DVT Prophylaxis Measures Yes No Not applicable
DVTProphylaxis (4040)