



# The Society of Thoracic Surgeons

## General Thoracic Surgery Database Data Collection Form

### Version 2.081

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- A Data Collection Form (DCF) should be initiated every time the patient enters the Operating Room (which includes the Endoscopy Suite or Out Patient Surgical Center.)
- Fields that appear underlined and in blue are required for record inclusion.  
If any of these fields are missing data, the entire record will be excluded from the analysis.

#### 1. Demographics

Patient ID: \_\_\_\_\_ Medical Record #: \_\_\_\_\_  
 First Name: \_\_\_\_\_ MI: \_\_\_\_\_ Last Name: \_\_\_\_\_ SSN#: \_\_\_\_\_  
 STS Trial Link #: \_\_\_\_\_  
 Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_ Age: \_\_\_\_\_ Patient Zip Code: \_\_\_\_\_ Gender:  Male  Female  
Race: *Select all that apply* →  White/Caucasian  Black/African American  Asian  
 American Indian/Alaskan Native  Native Hawaiian/Pacific Islander  
 Hispanic or Latino Ethnicity:  Yes  No

#### 2. Admission

Admission Status:  Inpatient  Outpatient / Observation *If Inpatient* → Admission Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Payor: *Select all that apply* ↓  
 Government Health Insurance:  
*If Yes: Select all that apply:* →  Medicare  Medicaid  Military Health Care  State-Specific Plan  Indian Health Service  
*If Medicare* → Fee For Service?  Yes  No Health Insurance Claim (HIC)#: \_\_\_\_\_  
 Commercial Health Insurance  Non-U.S. Insured  
 Health Maintenance Organization  None / Self  
 Surgeon Name: \_\_\_\_\_ Surgeon's National Provider ID: \_\_\_\_\_  
 Taxpayer ID#: \_\_\_\_\_ Hospital Name: \_\_\_\_\_  
 Hospital Zip Code: \_\_\_\_\_ Hospital State: \_\_\_\_\_ Hospital's National Provider ID: \_\_\_\_\_

#### 3. Pre-Operative Risk Factors

Height: \_\_\_\_\_ (cm) Weight: \_\_\_\_\_ (kg) Wt loss over past 3 months? (*Enter "0" if none*) \_\_\_\_\_ (kg)  
 Hypertension  Steroids  Congestive Heart Failure (CHF)  Coronary Artery Disease (CAD)  
 Peripheral Vascular Disease (PVD)  Prior Cardiothoracic Surgery  
 Preoperative chemotherapy *If Yes: When* →  ≤6 months  >6 months  
 Preoperative Thoracic Radiation Therapy *If Yes:*  Same disease, ≤6 months  Same disease, >6 months  
 Unrelated disease, ≤6 months  Unrelated disease, >6 months  
 Cerebrovascular History  No CVD history  Any reversible event  Any irreversible event  
 Pulmonary Hypertension  Yes  No  Not applicable/Not documented  
 Diabetes *If Yes, Type of control*  None  Diet  Oral or other non-insulin  Insulin  
 Creatinine level measured *If Yes* → Last creatinine level \_\_\_\_\_  
 On Dialysis  
 Hemoglobin level measured *If Yes* → Last hemoglobin level \_\_\_\_\_

COPD (Previous diagnosis, treatment, spirometric evidence)

Interstitial Fibrosis

**Cigarette smoking:**  Never smoked  Past smoker (stopped >1 month prior to operation)  Current smoker

*If past or current smoker* → Pack-Years \_\_\_\_\_

**Pulmonary Function Tests performed?**  Yes  No *If Yes:* ↓

**FEV1 test performed?**  Yes  No  Not Applicable *If Yes*→ **FEV1 % predicted:** \_\_\_\_\_

DLCO test performed?  Yes  No  Not Applicable *If Yes*→ DLCO % predicted: \_\_\_\_\_

**Zubrod Score:**  0 - Normal activity, no symptoms  1 - Symptoms, fully ambulatory  
 2 - Symptoms, in bed ≤50% of time  3 - Symptoms, in bed >50% but <100%  
 4 - Bedridden  5 - Moribund

#### 4. Procedures

**Category of Disease:** Check both **Primary** and **Secondary** category. Indicate (circle) the **Primary** category.

##### Trachea

- Tracheomalacia-congenital 748.3
- Tracheomalacia-acquired 519.1
- Tracheostenosis-congenital 748.3
- Tracheostenosis-acquired (postintubation) 519.1
- Tracheostomy-hemorrhage 519.09
- Tracheostomy related stenosis 519.02
- Tracheal tumor, malignant 162.0
- Tracheal tumor, benign 212.2
- Tracheal tumor, metastatic 197.3

##### Larynx

- Subglottic stenosis-congenital 748.3
- Subglottic stenosis-acquired (postintubation) 478.74
- Vocal cord paralysis 748.3

##### Lung

- Lung tumor, metastatic 197.0
- Lung tumor, benign 212.3
- Lung cancer, main bronchus, carina 162.2
- Lung cancer, upper lobe 162.3
- Lung cancer, middle lobe 162.4
- Lung cancer, lower lobe 162.5
- Lung cancer, location unspecified 162.9
- Lung abscess 513.0
- Pneumothorax 512.8
- Bronchiectasis 494.0
- Empyema with fistula 510.0
- Empyema without fistula 510.9
- Emphysema 492.8
- Emphysematous bleb 492.0
- Interstitial lung disease/fibrosis 516.3
- Pneumonia 486
- Pulmonary insufficiency following surgery/trauma (ARDS) 518.5
- Hemothorax 511.8
- Lung nodule, benign (not a tumor, e.g., granuloma, subpleural lymph node, pulmonary infarct) 518.89

##### Esophagus

- Esophageal cancer-lower third 150.5
- Esophageal cancer, middle third 150.4
- Esophageal cancer, upper third 150.3
- Esophageal cancer, esophagogastric junction (cardia) 151.0
- Esophageal tumor-benign (ie;leiomyoma) 211.0
- Esophageal stricture 530.3
- Barrett's esophagus 530.85
- Achalasia of esophagus 530.0
- Esophageal perforation 530.4

##### Mediastinum

- Mediastinitis 519.2
- Mediastinal nodes, metastatic 196.1
- Mediastinal nodes, benign 229.0
- Anterior mediastinal tumor primary (germ cell cancer, seminoma) 164.2
- Anterior mediastinal tumor-metastatic 197.1
- Anterior mediastinal tumor-benign-(e.g. teratoma) 212.5
- Anterior mediastinal tumor-thymus tumor (thymoma, thymic carcinoma) 164.0
- Lymphoma, intrathoracic 202.82
- Posterior mediastinal malignant tumor- primary 164.3
- Posterior mediastinal tumor-metastatic 197.1
- Posterior mediastinal tumor-benign (ie; neurogenic tumor) 212.5
- Myasthenia gravis 358.0
- Mediastinal cyst, Bronchogenic - 519.3
- Mediastinal cyst, Foregut duplication - 519.3
- Mediastinal cyst, Pericardial - 519.3
- Mediastinal cyst, Thymic - 519.3

##### Pleura

- Pleural effusion (sterile) 511.9
- Pleural effusion, infected- (empyema) 511.1
- Pleural effusion, malignant 197.2
- Pleural tumor, malignant (e.g., mesothelioma) 163.9
- Pleural tumor, metastatic 197.2
- Pleural tumor, benign 212.4
- Pleural thickening 511.0

##### Chest Wall

- Pectus excavatum 754.81
- Pectus carinatum 754.82
- Sternal tumor, malignant 170.3
- Sternal tumor, metastatic 198.5
- Sternal tumor, benign 213.3
- Rib tumor, malignant-(e.g., osteosarcoma, chondrosarcoma) 170.3
- Rib tumor, metastatic 198.5
- Rib tumor, benign-(e.g., fibrous dysplasia) 213.3
- Thoracic outlet syndrome 353.0

##### Diaphragm

- Diaphragmatic paralysis 519.4
- Diaphragm tumor, malignant 171.4
- Diaphragm tumor, metastatic 198.89
- Diaphragm tumor, benign 215.4

##### Trauma

- Rib fracture 807.0
- Sternal fracture 807.2
- Flail chest 807.4
- Tracheal injury 807.5
- Traumatic pneumothorax 860.0

<input type="checkbox"/> Zenkers diverticulum 530.6 <input type="checkbox"/> Epiphrenic diverticulum 530.4 <input type="checkbox"/> Gastroesophageal reflux (GERD) 530.81 <input type="checkbox"/> Tracheoesophageal fistula 530.84	<input type="checkbox"/> Traumatic hemothorax 860.2 <input type="checkbox"/> Traumatic hemopneumothorax 860.4 <input type="checkbox"/> Lung contusion 861.21 <input type="checkbox"/> Lung laceration 861.22
<input type="checkbox"/> Acquired pyloric stenosis 537.0 <input type="checkbox"/> Acquired absence of esophagus (i.e.; post esophagectomy) V45.79	<input type="checkbox"/> Diaphragm injury 862.0 <input type="checkbox"/> Esophageal injury 862.22 <input type="checkbox"/> Bronchus injury 862.21
<b>Thyroid</b> <input type="checkbox"/> Goiter, nodular 241.9 <input type="checkbox"/> Thyroid neoplasm, malignant 193 <input type="checkbox"/> Thyroid neoplasm, benign 226	<b>Cardiovascular</b> <input type="checkbox"/> Pericarditis with effusion 420.90 <input type="checkbox"/> Pericardial effusion, malignant 198.89 <input type="checkbox"/> SVC Syndrome 459.2
	<b>Miscellaneous</b> <input type="checkbox"/> Hyperhidrosis, focal (e.g., palmar or axillary hyperhidrosis) 705.21 <input type="checkbox"/> Lymphadenopathy 785.6 <input type="checkbox"/> Abnormal radiologic finding 793.1

**Date of Surgery:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**OR Entry Time:** \_\_\_\_:\_\_\_\_:\_\_\_\_      **Anesthesia Start Time:** \_\_\_\_:\_\_\_\_:\_\_\_\_      **Procedure Start Time:** \_\_\_\_:\_\_\_\_:\_\_\_\_

**OR Exit Time:** \_\_\_\_:\_\_\_\_:\_\_\_\_      **Anesthesia End Time:** \_\_\_\_:\_\_\_\_:\_\_\_\_      **Procedure End Time:** \_\_\_\_:\_\_\_\_:\_\_\_\_

Multi-Day Operation (operation continued through midnight)

Status of Operation:    Emergent    Urgent    Elective

Reoperation (any prior cardiothoracic surgery that affects operative field)       Assisted by Robotic Technology

Blood transfusion intraoperatively (packed red blood cells)    *If Yes*→ #Red Blood Cell Units: \_\_\_\_\_

**ASA Classification:**    I    II    III    IV    V

**Check ALL of the procedures attempted.** Indicate (circle) the Primary Procedure.

<b>Chest Wall and Neck</b> <input type="checkbox"/> Muscle flap, neck (15732) <input type="checkbox"/> Muscle flap; trunk (i.e.; intercostal, pectoralis or serratus muscle) (15734) <input type="checkbox"/> Excision of chest wall tumor including ribs (19260) <input type="checkbox"/> Excision of chest wall tumor involving ribs, with Reconstruction (19271) <input type="checkbox"/> Excision tumor, soft tissue of neck or thorax; subcutaneous (21555) <input type="checkbox"/> Excision tumor, soft tissue of neck or thorax; deep, subfascial, intramuscular (21556) <input type="checkbox"/> Radical resection of tumor (e.g., malignant neoplasm), soft tissue of neck or thorax (21557) <input type="checkbox"/> Excision of rib, partial (21600) <input type="checkbox"/> Excision first and/or cervical rib (21615) <input type="checkbox"/> Excision first and/or cervical rib; with sympathectomy (21616) <input type="checkbox"/> Radical resection of sternum (21630) <input type="checkbox"/> Radical resection of sternum; with mediastinal Lymphadenectomy (21632) <input type="checkbox"/> Hyoid myotomy and suspension (21685) <input type="checkbox"/> Division of scalenus anticus; without resection of cervical rib (21700) <input type="checkbox"/> Division of scalenus anticus; with resection of cervical rib (21705) <input type="checkbox"/> Reconstructive repair of pectus excavatum or carinatum; open (21740) <input type="checkbox"/> Reconstructive repair of pectus, minimally invasive approach (Nuss procedure), without thoracoscopy (21742) <input type="checkbox"/> Reconstructive repair of pectus, minimally invasive approach (Nuss procedure), with thoracoscopy (21743) <input type="checkbox"/> Open treatment of sternum fracture with or without skeletal Fixation (21825) <input type="checkbox"/> Unlisted procedure, neck or thorax (21899)	<b>Pleural Space and Lung</b> <input type="checkbox"/> Thoracostomy; with rib resection for empyema (32035) <input type="checkbox"/> Thoracostomy; with open flap drainage for empyema (32036) <input type="checkbox"/> Thoracotomy, limited, for biopsy of lung or pleura (i.e.; open lung biopsy) (32095) <input type="checkbox"/> Thoracotomy, major; with exploration and biopsy (32100) <input type="checkbox"/> Thoracotomy, major; with control of traumatic hemorrhage and/or repair of lung tear (32110) <input type="checkbox"/> Thoracotomy, major; for postoperative complications (32120) <input type="checkbox"/> Thoracotomy, major; with cyst(s) removal, with or without a pleural procedure (32140) <input type="checkbox"/> Thoracotomy, major; with excision-plication of bullae, with or without any pleural procedure (32141) <input type="checkbox"/> Thoracotomy, major; with removal of intrapleural foreign body or hematoma (32150) <input type="checkbox"/> Thoracotomy with cardiac massage (32160) <input type="checkbox"/> Pleural scarification for repeat pneumothorax (32215) <input type="checkbox"/> Decortication, pulmonary- total (32220) <input type="checkbox"/> Decortication, pulmonary, partial (32225) <input type="checkbox"/> Pleurectomy, parietal (32310) <input type="checkbox"/> Decortication and parietal pleurectomy (32320) <input type="checkbox"/> Biopsy, pleura; open (32402) <input type="checkbox"/> Removal of lung, total pneumonectomy (32440) <input type="checkbox"/> Removal of lung, sleeve (carinal) pneumonectomy (32442) <input type="checkbox"/> Removal of lung, total pneumonectomy; extrapleural (32445) <input type="checkbox"/> Removal of lung, single lobe (lobectomy) (32480) <input type="checkbox"/> Removal of lung, two lobes (bilobectomy) (32482) <input type="checkbox"/> Removal of lung, single segment (segmentectomy) (32484) <input type="checkbox"/> Removal of lung, sleeve lobectomy (32486) <input type="checkbox"/> Removal of lung, completion pneumonectomy (32488) <input type="checkbox"/> Removal of lung, excision-plication of emphysematous lung(s) for lung volume reduction (LVRS) (32491) <input type="checkbox"/> Removal of lung, wedge resection, single or multiple (32500) <input type="checkbox"/> Resection and repair of portion of bronchus (bronchoplasty)
<b>Trachea and Bronchi</b> <input type="checkbox"/> Tracheoplasty; cervical (31750) <input type="checkbox"/> Tracheoplasty; intrathoracic (31760) <input type="checkbox"/> Carinal reconstruction (31766) <input type="checkbox"/> Bronchoplasty; excision stenosis and anastomosis (31775) <input type="checkbox"/> Excision tracheal stenosis and anastomosis; cervical (31780)	

- Excision tracheal stenosis and anastomosis; cervicothoracic (31781)
- Excision of tracheal tumor or carcinoma; cervical (31785)
- Excision of tracheal tumor or carcinoma; thoracic (31786)
- Suture of tracheal wound or injury; cervical (31800)
- Suture of tracheal wound or injury; intrathoracic (31805)
- Unlisted procedure, trachea, bronchi (31899)

### Thoracoscopy (VATS)

- Thoracoscopy, diagnostic lungs and pleural space, without biopsy (32601)
- Thoracoscopy, diagnostic lungs and pleural space, with biopsy (32602)
- Thoracoscopy, diagnostic pericardial sac, without biopsy (32603)
- Thoracoscopy, diagnostic pericardial sac, with biopsy (32604)
- Thoracoscopy, diagnostic mediastinal space, without biopsy (32605)
- Thoracoscopy, diagnostic; mediastinal space, with biopsy (32606)
- Thoracoscopy, surgical; with pleurodesis (e.g., mechanical or chemical) (32650)
- Thoracoscopy, surgical; with partial pulmonary decortication (32651)
- Thoracoscopy, surgical; with total pulmonary decortication (32652)
- Thoracoscopy, surgical; with removal of intrapleural foreign body or fibrin deposit (32653)
- Thoracoscopy, surgical; with control of traumatic hemorrhage (32654)
- Thoracoscopy, surgical; with excision-plication of bullae, including any pleural procedure (32655)
- Thoracoscopy, surgical; with parietal pleurectomy (32656)
- Thoracoscopy, surgical; with wedge resection of lung, single or multiple (32657)
- Thoracoscopy, surgical; with removal of clot or foreign body from pericardial sac (32658)
- Thoracoscopy, surgical; with creation of pericardial window or partial resection of pericardial sac for drainage (32659)
- Thoracoscopy, surgical; with total pericardiectomy (32660)
- Thoracoscopy, surgical; with excision of pericardial cyst, tumor, or mass (32661)
- Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass (32662)
- Thoracoscopy, surgical; with lobectomy, total or segmental (32663)
- Thoracoscopy, surgical; with thoracic sympathectomy (32664)
- Thoracoscopy, surgical; with esophagomyotomy (Heller type) (32665)

### Lung Other

- Insertion indwelling tunneled pleural catheter (32550)
- Repair lung hernia through chest wall (32800)
- Closure of chest wall following open flap drainage for empyema (Clagett type procedure) (32810)
- Open closure of major bronchial fistula (32815)
- Major reconstruction, chest wall (posttraumatic) (32820)
- Thoracoplasty with closure of bronchopleural fistula (32906)
- Total lung lavage (for alveolar proteinosis) (32997)
- Radio-frequency ablation (RFA) lung tumor (32998)
- Single lung transplant (32851)
- Single lung transplant with CPB (32852)
- Double lung transplant (32853)
- Double lung transplant with CPB (32854)
- Unlisted procedure, lung (32999)

### Thymus

- Thymectomy, transcervical approach (60520)
- Thymectomy, transthoracic approach (60521)
- Thymectomy, transthoracic approach, with radical mediastinal dissection (60522)
- VATS thymectomy (605XX)

### Esophagus

- Transhiatal-Total esophagectomy, without thoracotomy, with cervical esophagogastrostomy (43107)

- when performed at time of lobectomy or Segmentectomy (32501)
- Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, without chest wall reconstruction (32503)
- Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, with chest wall reconstruction (32504)
- Extrapleural enucleation of empyema (empyemectomy) (32540)

### Bronchoscopy

- Tracheobronchoscopy through established tracheostomy Incision (31615)
- Endobronchial ultrasound (EBUS) during bronchoscopic diagnostic or therapeutic intervention(s) (31620)
- Bronchoscopy, diagnostic, with or without cell washing (31622)
- Bronchoscopy, with brushing or protected brushings (31623)
- Bronchoscopy, with bronchial alveolar lavage (BAL) (31624)
- Bronchoscopy, with bronchial or endobronchial biopsy(s), single or multiple sites (31625)
- Bronchoscopy, with transbronchial lung biopsy(s), single Lobe (31628)
- Bronchoscopy, with transbronchial needle aspiration biopsy(s) (31629)
- Bronchoscopy, with tracheal/bronchial dilation or closed reduction of fracture (31630)
- Bronchoscopy, with placement of tracheal stent(s) (includes tracheal/bronchial dilation as required) (31631)
- Bronchoscopy, with transbronchial lung biopsy(s), each additional lobe (31632)
- Bronchoscopy, with transbronchial needle aspiration biopsy(s), each additional lobe (31633)
- Bronchoscopy, with removal of foreign body (31635)
- Bronchoscopy, with placement of bronchial stent(s) (includes tracheal/bronchial dilation as required), initial bronchus (31636)
- Bronchoscopy, each additional major bronchus stented (31637)
- Bronchoscopy, with revision of tracheal or bronchial stent inserted at previous session (31638)
- Bronchoscopy, with excision of tumor (31640)
- Bronchoscopy, with destruction of tumor or relief of stenosis by any method other than excision (e.g., laser therapy) (31641)
- Bronchoscopy, with placement of catheter(s) for intracavitary radioelement application (31643)
- Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, initial (e.g., V2\_0\_17, drainage of lung abscess) (31645)
- Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, subsequent (31646)

### Mediastinum and Diaphragm

- Thoracic lymphadenectomy, regional, including mediastinal and peritracheal nodes (38746)
- Mediastinotomy with exploration or biopsy; cervical approach (39000)
- Mediastinotomy with exploration or biopsy; transthoracic approach (39010)
- Excision of mediastinal cyst (39200)
- Excision of mediastinal tumor (39220)
- Mediastinoscopy, with or without biopsy (39400)
- Unlisted procedure, mediastinum (39499)
- Repair, laceration of diaphragm, any approach (39501)
- Repair of paraesophageal hiatus hernia, transabdominal with or without fundoplasty (39502)
- Repair, diaphragmatic hernia (other than neonatal), traumatic; acute (39540)
- Repair, diaphragmatic hernia (other than neonatal), traumatic; chronic (39541)
- Imbrication (i.e.; plication) of diaphragm (39545)
- Resection, diaphragm; with simple repair (e.g., primary suture) (39560)

- Three hole-Total esophagectomy with thoracotomy; with cervical esophagogastrostomy (43112)
- Ivor Lewis-Partial esophagectomy, distal two-thirds, with thoracotomy and separate abdominal incision (43117)
- Thoracoabdominal-Partial esophagectomy, thoracoabdominal approach (43122)
- Minimally invasive esophagectomy, Ivor Lewis approach (43XXX)
- Minimally invasive esophagectomy, Abdominal and neck approach (43XXX)
- Total esophagectomy without thoracotomy; with colon interposition or small intestine reconstruction (43108)
- Total esophagectomy with thoracotomy; with colon interposition or small intestine reconstruction (43113)
- Partial esophagectomy, cervical, with free intestinal graft, including microvascular anastomosis (43116)
- Partial esophagectomy, with thoracotomy and separate abdominal incision with colon interposition or small intestine (43118)
- Partial esophagectomy, distal two-thirds, with thoracotomy only (43121)
- Partial esophagectomy, thoracoabdominal with colon interposition or small intestine (43123)
- Total or partial esophagectomy, without reconstruction with cervical esophagostomy (43124)

**Esophagoscopy**

- Esophagoscopy (43200)
- Esophagoscopy with biopsy (43202)
- Esophagoscopy with removal of foreign body (43215)
- Esophagoscopy with insertion of stent (43219)
- Esophagoscopy with balloon dilation (43220)
- Esophagoscopy with insertion of guide wire followed by dilation over guide wire (43226)
- Esophagoscopy with ablation of tumor (43228)
- Esophagoscopy with endoscopic ultrasound examination (EUS) (43231)
- Esophagoscopy with transendoscopic ultrasound-guided fine needle aspiration (43232)
- Upper gastrointestinal endoscopy, diagnostic (43235)
- Upper gastrointestinal endoscopy with endoscopic ultrasound examination limited to the esophagus (43237)
- Upper gastrointestinal endoscopy with transendoscopic ultrasound-guided FNA (43238)
- Upper gastrointestinal endoscopy with biopsy (43239)
- Upper gastrointestinal endoscopy with dilation of gastric outlet for obstruction (43245)
- Upper gastrointestinal endoscopy with directed placement of percutaneous gastrostomy tube (43246)
- Upper gastrointestinal endoscopy with removal of foreign body (43247)
- Upper gastrointestinal endoscopy with insertion of guide wire followed by dilation of esophagus (43248)
- Upper gastrointestinal endoscopy with balloon dilation of esophagus (43249)
- Upper gastrointestinal endoscopy with transendoscopic stent placement (43256)
- Upper gastrointestinal endoscopy with ablation of tumor (43258)

- Resection, diaphragm; with complex repair (e.g., prosthetic material, local muscle flap) (39561)
- Unlisted procedure, diaphragm (39599)

**Esophagus – other procedures**

- Cricopharyngeal myotomy (43030)
- Diverticulectomy of hypopharynx or esophagus, with or without myotomy; cervical approach (43130)
- Diverticulectomy of hypopharynx or esophagus, with or without myotomy; thoracic approach (43135)
- Laparoscopy, surgical, esophagogastric fundoplasty (e.g., Nissen, Toupet procedures) (43280)
- Laparoscopic esophageal myotomy (432XX)
- Esophagogastric fundoplasty (e.g., Nissen, Belsey IV, Hill procedures) (43324)
- Esophagogastric fundoplasty; with gastroplasty (e.g., Collis) (43326)
- Esophagomyotomy (Heller type); thoracic approach (43331)
- Esophagostomy, fistulization of esophagus, external; cervical approach (43352)
- Gastrointestinal reconstruction for previous esophagectomy with stomach (43360)
- Gastrointestinal reconstruction for previous esophagectomy with colon interposition or small intestine (43361)
- Ligation or stapling at gastroesophageal junction for pre-existing esophageal perforation (43405)
- Suture of esophageal wound or injury; cervical approach (43410)
- Suture of esophageal wound or injury; transthoracic or transabdominal approach (43415)
- Closure of esophagostomy or fistula; cervical approach (43420)
- Free jejunum transfer with microvascular anastomosis (43496)
- Total gastrectomy with esophagoenterostomy (43620)
- Total gastrectomy with Roux-en-Y reconstruction (43621)
- Unlisted procedure, esophagus (43499)

**Miscellaneous**

- Partial laryngectomy (31370)
- Ligation thoracic duct (38381)
- Intraoperative jejunostomy (44015)
- Omental flap (49904)
- Transthoracic thyroidectomy (60270)
- Removal substernal thyroid, cervical approach (60271)
- Tube pericardiostomy (33015)
- Pericardial window (33025)
- SVC resection and reconstruction (34502)
- Other (XXXX)

Lung Resection Performed  Yes  No

If Yes → Laterality:  Right  Left  Bilateral  Not Applicable

If Admission Status=Inpatient → **Patient Disposition:**  ICU  Intermediate Care Unit  
 Regular Floor Bed  Not Applicable (Expired in OR)

If Admission Status=Inpatient → Total #Days in ICU: \_\_\_\_\_

**Lung cancer documented AND resection performed**

Indicate whether the patient has lung cancer documented with one of the following Categories of Disease:

- 150 = Lung cancer, main bronchus, carina-162.2
- 160 = Lung cancer, upper lobe-162.3,
- 170 = Lung cancer, middle lobe-162.4
- 180 = Lung cancer, lower lobe-162.5
- 190 = Lung cancer, location unspecified-162.9

AND,

was treated with one of the following Procedures:

- 2470 = Removal of lung, total pneumonectomy; (32440)
- 2500 = Removal of lung, single lobe (lobectomy) (32480)
- 2510 = Removal of lung, two lobes (bilobectomy) (32482)
- 2520 = Removal of lung, single segment (segmentectomy) (32484)
- 2530 = Removal of lung, sleeve lobectomy (32486)
- 2540 = Removal of lung, completion pneumonectomy (32488)
- 2560 = Removal of lung, wedge resection, single or multiple (32500)
- 2580 = Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, without chest wall reconstruction(s) (32503)
- 2590 = Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, with chest wall reconstruction (32504)
- 2740 = Thoracoscopy, surgical; with wedge resection of lung, single or multiple (32657)
- 2800 = Thoracoscopy, surgical; with lobectomy, total or segmental (32663).

Yes  No (If Yes, indicate clinical and pathological staging for lung cancer)

### Esophageal cancer documented AND resection performed

Indicate whether the patient has esophageal cancer documented with one of the following Categories of Disease:

- 680 = Esophageal cancer-lower third-150.5
- 690 = Esophageal cancer, middle third-150.4
- 700 = Esophageal cancer, upper third-150.3
- 710 = Esophageal cancer, esophagogastric junction (cardia)-151.0

AND was treated with one of the following Procedures:

- 3320 = Transhiatal-Total esophagectomy, without thoracotomy, with cervical esophagogastrostomy (43107)
- 3330 = Three hole-Total esophagectomy with thoracotomy; with cervical esophagogastrostomy (43112)
- 3340 = Ivor Lewis-Partial esophagectomy, distal two-thirds, with thoracotomy and separate abdominal incision (43117)
- 3350 = Thoracoabdominal-Partial esophagectomy, thoracoabdominal approach (43122)
- 3360 = Minimally invasive esophagectomy, Ivor Lewis approach (43XXX)
- 3370 = Minimally invasive esophagectomy, Abdominal and neck approach (43XXX)
- 3380 = Total esophagectomy without thoracotomy; with colon interposition or small intestine reconstruction (43108)
- 3390 = Total esophagectomy with thoracotomy; with colon interposition or small intestine reconstruction (43113)
- 3400 = Partial esophagectomy, cervical, with free intestinal graft, including microvascular anastomosis (43116)
- 3410 = Partial esophagectomy, with thoracotomy and separate abdominal incision with colon interposition or small intestine (43118)
- 3420 = Partial esophagectomy, distal two-thirds, with thoracotomy only (43121)
- 3430 = Partial esophagectomy, thoracoabdominal with colon interposition or small intestine (43123)

Yes  No (If Yes, indicate clinical and pathological staging for esophageal cancer)

### **Clinical Staging**

If lung cancer documented and resection performed: ↓ (Stage both non-small cell and small cell lung cancer the same.)

#### **Lung Cancer**

- T1a** (Tumor ≤2 cm, surrounded by lung, not in the main bronchus)
- T1b** (Tumor >2 cm, ≤3 cm, surrounded by lung, not in the main bronchus)
- T2a** (Tumor >3 cm, ≤5 cm, or invades visceral pleura, involves main bronchus >2 cm from carina, associated with atelectasis that extends to the hilum but not the entire lung)
- T2b** (Tumor >5 cm, ≤7 cm, or invades visceral pleura, involves main bronchus >2 cm from carina, associated with atelectasis that extends to the hilum but not the entire lung)
- T3** (Tumor >7 cm or invasion of chest wall, diaphragm, phrenic nerve, mediastinal pleura, pericardium; or tumor in the main bronchus ≤2 cm from carina, or atelectasis of the entire lung, or separate tumor nodules in the same lobe)
- T4** (Tumor of any size that invades mediastinum, heart, great vessels, recurrent laryngeal nerve, esophagus, vertebral body, carina; separate tumor nodule in a different ipsilateral lobe)
- N0** (No nodal metastases)
- N1** (Nodal metastases to ipsilateral hilar or peribronchial nodes)
- N2** (Nodal metastases to ipsilateral mediastinal and/or subcarinal nodes)
- N3** (Nodal metastases to contralateral mediastinal, contralateral hilar, and either ipsilateral or contralateral scalene or supraclavicular nodes)
- M0** (No distant metastases)
- M1a** (Separate tumor nodule in a contralateral lobe, tumor with pleural nodules or malignant pleural or pericardial effusion)
- M1b** (Distant metastases)

If esophageal cancer documented and resection performed: ↓

#### **Esophageal Cancer**

##### **Primary Tumor**

- T0** (No evidence of tumor)
- Tis** (High grade dysplasia – HGD)
- T1a** (Tumor invades lamina propria or muscularis mucosae)
- T1b** (Tumor invades submucosa)
- T2** (Tumor invades muscularis propria)

##### **Regional Lymph Nodes**

- N0** (No nodal metastases)
- N1a** (Nodal metastases to 1 or 2 nodes)
- N1b** (Nodal metastases to 3 to 5 nodes)
- N2** (Nodal metastases to 6 to 9 nodes)
- N3** (Nodal metastases to 10 or more nodes)



- T3** (Tumor invades adventita)
- T4a** (Tumor invades adjacent structures – pleura, pericardium, diaphragm)
- T4b** (Tumor invades other adjacent structures)

**Histologic Grade**

- GX** (Grade cannot be accessed)
- G1** (Well differentiated)
- G2** (Moderately differentiated)
- G3** (Poorly differentiated)
- G4** (Undifferentiated)

**Distant Metastasis**

**Histopathologic Type**

- M0** (No distant metastases)
- M1** (Distant metastases)
- H1** (Squamous carcinoma)
- H2** (Adenocarcinoma)

**5. Postoperative Events**

Indicate all adverse events that occurred within 1 month of surgery if discharged from the hospital or those that occur during the same admission, regardless of the length of stay.

If Patient Disposition = "ICU", "Intermediate Care Unit" or "Regular floor bed" → Unexpected Return to the OR  Yes  No

If Yes → Bleeding req re-operation  Yes  No

**Postoperative Events?**  Yes  No If Yes, select all that occurred: ↓

**Pulmonary**

- Air leak > 5 days duration
- Atelectasis req bronchoscopy
- Pneumonia
- Adult Respiratory Distress Syndrome (ARDS)
- Bronchopleural fistula
- Pulmonary embolus
- Pneumothorax
- Initial ventilator support > 48 hours
- Reintubation
- Tracheostomy
- Other Pulmonary event

**Cardiovascular**

- Atrial arrhythmia req Rx
- Ventricular arrhythmia req Rx
- Myocardial infarct
- Deep venous thrombosis (DVT) req Rx
- Other CV event

**Infection**

- Urinary tract infection
- Empyema req Rx
- Wound infection
- Sepsis
- Another infection req IV antibiotics

**Hematology**

- Packed red blood cells
- If Yes→ # Units \_\_\_\_\_

**Gastrointestinal**

- Gastric outlet obstruction
- Ileus
- Anastomosis leak req medical Rx only (i.e.: interventional radiation drainage, NPO, antibiotics)
- Anastomosis leak req surgical intervention (i.e.: reoperation)
- Dilation esophagus prior to discharge
- Other GI event

**Neurology**

- New central neurological event (TIA, CVA, etc.)
- Recurrent laryngeal nerve paresis or paralysis
- Delirium
- Other neurological event

**Miscellaneous**

- New renal failure req Rx or worsening (Cr >=2x preop)
- Chylothorax req medical intervention (i.e.: chest tube, TPN)
- Chylothorax req surgical intervention (i.e.: reoperation and ligation of thoracic duct)
- Other events req OR with general anesthesia

If Admission Status = Inpatient ↓

- Unexpected Admission to ICU

**6. Discharge**

If Admission Status = Inpatient→ **Date of Discharge:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**Discharge Status:**  Alive  Dead

If Alive → Discharge location:  Home  Extended Care / Transitional Care Unit / Rehab  
 Other Hospital  Nursing Home  Hospice  Other

Readmitted within 30 days of procedure  Yes  No

If Admission Status = Inpatient→ **Status at 30 days after surgery:**  Alive  Dead  Unknown

Date of Death: \_\_\_\_/\_\_\_\_/\_\_\_\_

Chest tube used?  Yes  No

If Chest Tube Use = Yes → Discharged with chest tube  Yes  No If No→ Date chest tube was removed: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Pathological Staging**

If lung cancer documented and resection performed: ↓

**Lung Cancer**

- T1a** (Tumor <=2 cm, surrounded by lung, not in the main bronchus)
- T1b** (Tumor >2 cm, <=3 cm, surrounded by lung, not in the main bronchus)
- T2a** (Tumor >3 cm, <=5 cm, or invades visceral pleura, involves main bronchus >2 cm from carina, associated with atelectasis that extends to the hilum but not the entire lung)
- T2b** (Tumor >5 cm, <=7 cm, or invades visceral pleura, involves main bronchus >2 cm from carina, associated with atelectasis that extends to the hilum but not the entire lung)
- T3** (Tumor >7 cm or invasion of chest wall, diaphragm, phrenic nerve, mediastinal pleura, pericardium; or tumor in the main

- bronchus <=2 cm from carina, or atelectasis of the entire lung, or separate tumor nodules in the same lobe)
- T4** (Tumor of any size that invades mediastinum, heart, great vessels, recurrent laryngeal nerve, esophagus, vertebral body, carina; separate tumor nodule in a different ipsilateral lobe)
- N0** (No nodal metastases)
- N1** (Nodal metastases to ipsilateral hilar or peribronchial nodes)
- N2** (Nodal metastases to ipsilateral mediastinal and/or subcarinal nodes)
- N3** (Nodal metastases to contralateral mediastinal, contralateral hilar, and either ipsilateral or contralateral scalene or supraclavicular nodes)
- M0** (No distant metastases)
- M1a** (Separate tumor nodule in a contralateral lobe, tumor with pleural nodules or malignant pleural or pericardial effusion)
- M1b** (Distant metastases)

If esophageal cancer documented *and* resection performed: ↓

**Esophageal Cancer and of the Cardia and Gastroesophageal Junction**

**Primary Tumor**

- T0** (No evidence of tumor)
- Tis** (High grade dysplasia – HGD)
- T1a** (Tumor invades lamina propria or muscularis mucosae)
- T1b** (Tumor invades submucosa)
- T2** (Tumor invades muscularis propria)
- T3** (Tumor invades adventita)
- T4a** (Tumor invades adjacent structures – pleura, pericardium, diaphragm)
- T4b** (Tumor invades other adjacent structures)

**Distant Metastasis**

- M0** (No distant metastases)
- M1** (Distant metastases)

**Histopathologic Type**

- H1** (Squamous carcinoma)
- H2** (Adenocarcinoma)

**Regional Lymph Nodes**

- N0** (No nodal metastases)
- N1a** (Nodal metastases to 1 or 2 nodes)
- N1b** (Nodal metastases to 3 to 5 nodes)
- N2** (Nodal metastases to 6 to 9 nodes)
- N3** (Nodal metastases to 10 or more nodes)

**Histologic Grade**

- GX** (Grade cannot be accessed)
- G1** (Well differentiated)
- G2** (Moderately differentiated)
- G3** (Poorly differentiated)
- G4** (Undifferentiated)

**7. Quality Measures**

If Admission Status = Inpatient ↓

- IV antibiotics ordered within 1 hour  Yes  No *If Yes →* IV antibiotics given within 1 hour  Yes  No  Not indicated for procedure
- Cephalosporin Antibiotic Ordered  Yes  No  Not indicated for procedure  
 Not indicated due to documented allergy; another appropriate antibiotic given
- Prophylactic Antibiotic Discontinuation Ordered  Yes  No  No, due to documented infection
- DVT Prophylaxis Measures  Yes  No  Not applicable

If Cigarette Smoking = Current Smoker ↓

- Smoking Cessation Counseling  Yes  No  Patient refused