Society of Thoracic Surgeons

General Thoracic Surgery Database Monthly Webinar

January 8, 2025

STS National Database™
Trusted. Transformed. Real-Time.


HAPPY NEW YEAR

Agenda

- Welcome and Introduction
- STS Updates
- Educational Updates (Ruth Raleigh, GTSD Consultant)
  - Back to the Basics
- Q&A

STS Updates

- Training Manual to be posted by end of day (1/8)

- 2025 Harvest Schedule
  - Spring 2025 close date: **March 7, 2025**
    - Reporting period includes OR dates 1/1/2022 – 12/31/2024
  - Fall 2025 close date: **September 5, 2025**
    - Reporting period includes OR dates 7/1/2022 – 6/30/2025

- Public Reporting Update
  - Primary Lung Cancer Resection Composite (replaces Lobectomy)
  - Scheduled for January 2025 – Data refresh is expected to occur next week
    - Official announcement will be sent to sites once the website is updated

STS Updates

- 12/23/24 - Calculation for Min Invasive Lung Cancer Resection for Clin Stage I Lung Cancer was updated. Lung Cancer Resection STS/NIS Compare button reactivated
  - Email sent to Participants and Notification posted within IQVIA Platform

- Reminder: An updated Analysis Overview was posted in November (11_22_2024)
  - Updated NIS Min Invasive Calculation for # Patients for both Participant and STS
  - Added “Elective Procedures” to inclusion criteria
  - Added “Lung/Esoph Cancer Variables = Yes” to inclusion criteria
  - Added “Covid + records w/ surg date July 1, 2021 – Dec 31, 2021” to exclusion criteria
  - Added “Reoperations” to exclusion criteria

- Report Related Questions??? Please email the Helpdesk : stsdb_helpdesk@sts.org
  - Refer to the Analysis Overview
  - Include your Participant ID
  - Indicate the Reporting time period (Spring 24, Fall 24, etc.)
  - Screenshots are helpful!!

AQO Info

- **AQO 2025 Details COMING SOON!!!**

- AQO Content is now located in the STS Learning Center and will be available until AQO 2025

- To access content sign into the STS Learning Center (use your login information that was used to register for the conference).
  - Your name will be listed in the upper right corner of the site. If you do not know your login credentials, you can contact STS Member Services at membership@sts.org

- Link for the **2024 AQO Meeting Content on STS Learning Center**

- Link for the **2024 Advances in Quality & Outcomes: Hot Topics Webinars**.

Post AQO Info

- Once you are signed in, all the sessions for AQO will be listed as "**In Progress**" or "**Enrolled**" as seen here:

2024 Advances in Quality & Outcomes: A Data Managers Meeting

About | Accreditation | Start activity

Title	Price	Status
2024 Advances in Quality & Outcomes: A Data Managers Meeting	$500.00	In progress
2024 Advances in Quality & Outcomes: GTSD	Included	In progress
How to Interpret Your Harvest Report, Analysis Overview, and Star Ratings	Included	In progress
Lung Cancer	Included	Enrolled
Lung Cancer: Case Scenarios	Included	Enrolled
Lung Cancer Q&A	Included	Enrolled
Neoadjuvant Therapy Module	Included	Enrolled
GTSD Revised Risk Models and Short & Long Term Risk Calculators	Included	Enrolled
Division of Responsibility: Data Manager vs. Surgeon	Included	Enrolled
Core Group: Behind the Scenes with Tough Cases	Included	Enrolled
Esophageal Cancer	Included	Enrolled
Esophageal Cancer: Case Scenarios	Included	Enrolled
Post-Operative Events	Included	Enrolled
Post-Operative Events: Case Scenarios	Included	Enrolled
GTSD Audit	Included	Enrolled
Pulmonary Function Tests	Included	Enrolled
How to Use My Data for Quality Improvement	Included	Enrolled
2024 Advances in Quality & Outcomes: Intermacs/Pedimacs	Included	In progress

Post AQO Info

- When you click one of the session titles, click the **Start activity** button to access the recording and any related slides/handouts.

STS Education
Ruth Raleigh
(GTSD Consultant)

What Cases Are Required for Inclusion?

New therapeutic lung resections

New therapeutic esophagectomies

How do I know if a case is lung/esophageal cancer?

Look at your pathology report before beginning abstraction!

If a case is not staged with the lung and/or esophageal cancer staging systems then it is unlikely that you have a new therapeutic lung and/or esophageal cancer case.

The Eighth Edition of TNM Staging of Lung Cancer: Reference Chart and Diagrams - PMC

What does ‘new’ mean?

New cancers are those not previously definitively treated in some other way. Prior definitive treatment can be chemotherapy, radiation therapy and/or a prior surgical resection for the same disease.

Neoadjuvant chemo/RT aka induction chemo/RT is not intended to definitively treat new disease, but rather to treat disease prior to a planned definitive surgical resection.

At times, it can be difficult to impossible to determine whether your patient is being treated for new vs recurrent disease, and you will need to ask your surgeon.

Pertinent FAQ's for Lung Resections (Seq 1510)

Mar 2022: In the case where a therapeutic lung resection is performed for recurrent lung cancer, code 'no' to seq 1510. The intent of seq 1510 is to capture data on NEW primary lung cancer resections.

Apr 2022: Surgical resections of a lung cancer previously treated with SBRT/CyberKnife are not NEW lung cancer resections. Code 'no' to 1510.

Apr 2022: Lobectomy after prior same lobe segmentectomy for recurrent lung cancer is not NEW lung cancer. Code 'no' to 1510. For example, code 'no' to 1510 for a LL Lobectomy performed in 2022 for recurrent lung cancer that was resected via LLL segmentectomy in 2020.

Apr 2022: Lung resection completed for adenosquamous lung cancer, after lung resection for adenocarcinoma years prior is a NEW second primary lung cancer. Code 'yes' to 1510.

July 2022: Given clarification provided in March that the intent of seq 1510 is to capture data on NEW primary lung cancer resections and that 'no' should be coded to seq 1510 for recurrent lung cancers, sites are not required to abstract cases performed for recurrent lung cancer. The STS General Thoracic Registry version 5.21.1 requires submission of all lung resections for NEW primary lung cancer.

July 2022: Code 'yes' to 1510 for new primary carcinoid tumors of the lung that are therapeutically resected.

July 2022: If a new primary lung cancer is therapeutically resected, it must be captured. For example, patient had a pneumonectomy for recurrent infections – on final pathology the patient had adenocarcinoma staged mpT1apN0. This case is required for entry.

Aug 2022: If a wedge resection is completed for a new primary lung cancer – it can be either therapeutic or diagnostic depending on the extent of the disease at the time of resection. If you are unsure, it is helpful to discuss with your surgeon and document your conversation for your records.

Mar 2023: Lung cancers that have been previously resected via endobronchial tumor resection that are subsequently followed by a therapeutic pulmonary resection with no residual disease are to be captured as new primary lung cancer resections.

Pertinent FAQ's for Esophageal Resections (Seq 1530)

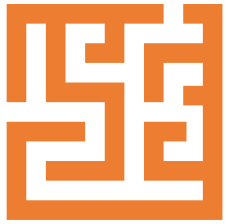
June 2022: In the case where a therapeutic esophageal resection is performed for recurrent esophageal cancer, code 'no' to seq 1530. The intent of seq 1530 is to capture data on NEW primary esophageal cancer resections.

Sept 2022: Esophageal cancers that have been previously resected via EMR that are subsequently followed by esophagectomy are to be captured as new primary esophageal cancer resections.

Dec 2022: Severe esophageal dysplasia on final pathology is not equivalent to esophageal cancer, code 'no' to seq 1530 unless esophageal cancer was previously pathologically diagnosed and treated with induction therapy prior to resection.

Sept 2024: Do not capture esophagectomies for patients with recurrent esophageal cancer that have previously been definitively treated with chemotherapy and radiation therapy. In many instances, these will be described as 'salvage' procedures. Definitive treatment with chemotherapy/radiation therapy is not the same as induction or neo-adjuvant chemotherapy/radiation therapy.

Once I know I have a new thereaputic cancer case to abstract, what's next?



Abstract the rest of the case in whatever pattern makes the most sense to you.

I recommend following the same pattern for abstraction of every case

Create a source document for where you find specific pieces of information

Common Trouble Spots:

Clinical staging

PFT's

Substance Use Screening

Absence of Mortality/Readmission Status

Clinical Staging: What?

Imaging tests cannot confirm that a person has lung cancer. However, they provide a lot of information to help put the whole picture together for the doctor. Imaging tests may be done before a diagnosis of lung cancer, during treatment for lung cancer, and after treatment. They are done for a number of reasons, including:

- To get more specific information about a suspicious area that might be cancerous
- To determine how far cancer may have spread
- To find out if treatment has been effective
- To monitor for possible signs of cancer coming back after treatment[1,2]

Different imaging tests a person might undergo include chest X-ray, CT (computed tomography or CAT) scan, MRI (magnetic resonance imaging) scan, PET (positron emission tomography) scan, and bone scan. These are

Diagnosing Lung Cancer | LUNGevity Foundation

Clinical Staging: When?

When is lung cancer staged?

Lung cancer may be staged once or twice. The first staging, which all patients should undergo, is carried out when a patient is initially diagnosed; it should be completed before treatment begins. This type of staging is called clinical staging. Clinical staging is based on the results of various tests, discussed in more detail in the Diagnosing Lung Cancer section of Lung Cancer 101, including imaging tests and biopsies. The clinical stage is not only the basis for deciding on a patient's treatment plan, but is also the basis for comparison when checking into the patient's response to treatment. The second staging, called pathologic or surgical staging, adds what is learned about the patient's cancer from surgical treatment to the determination of staging. If the pathologic stage differs from the clinical stage (which it may, for example, if it is evident that the lung cancer has spread more than initially estimated), then the healthcare team can adjust the treatment more precisely.[1,2]

Lung Cancer Staging | LUNGevity Foundation

Clinical Staging: What?

Tissue biopsies are tests in which small amounts of tissue are removed for examination to find out if a person has lung cancer and, if so, which type of lung cancer.

Currently, tissue biopsies are the only way to confirm a diagnosis of lung cancer.

- Bronchoscopy
- Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA)
- Transthoracic needle biopsy
- Thoracentesis
- Thoracoscopy/VATS
- Mediastinoscopy and mediastinotomy

Seq 1600: Clinical Staging Done for Lung Cancer

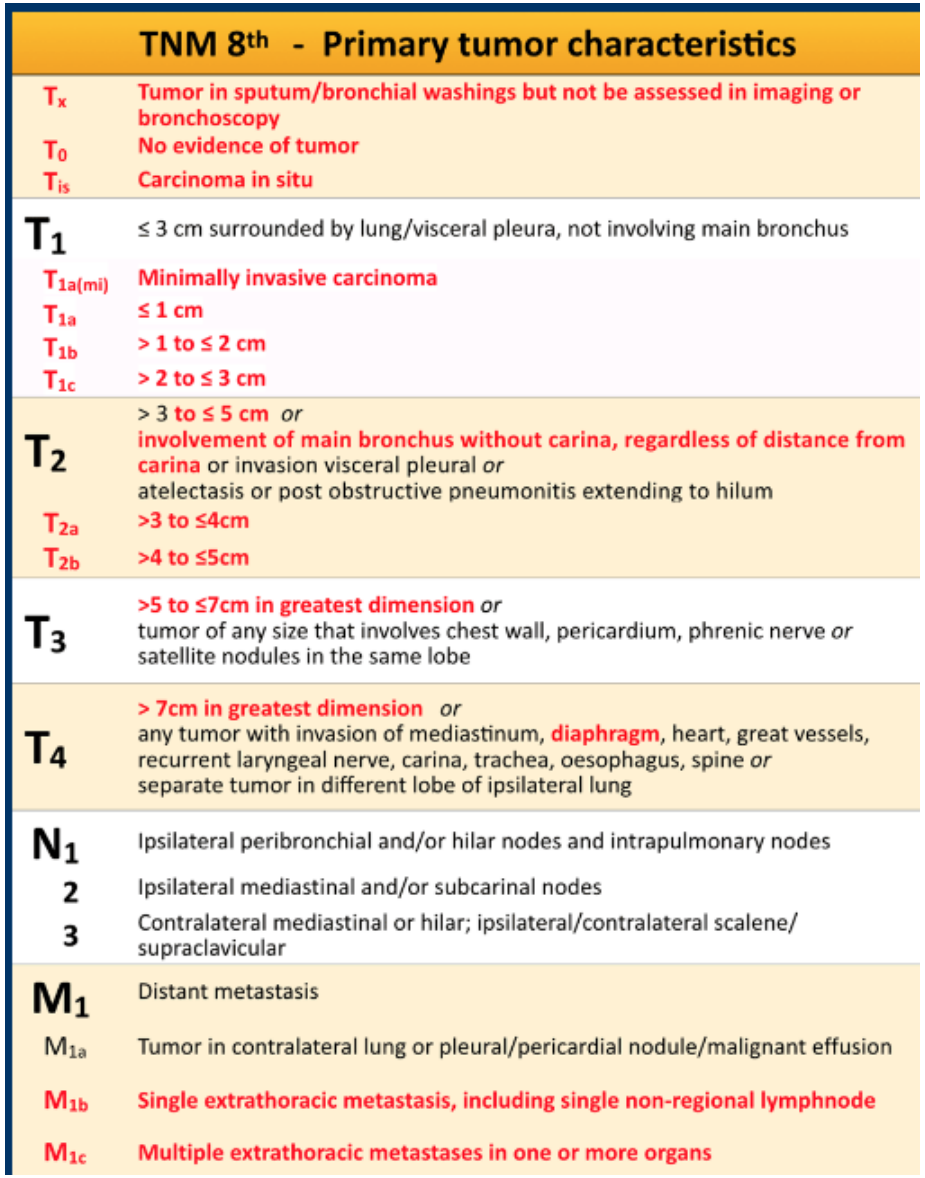
- If your patient has a therapeutic resection for lung cancer, this will almost always be coded as ‘yes’.
- Surgeons have an idea what stage their patient's lung cancer is BEFORE operating
- If you disagree with a documented clinical stage, discuss it with your surgeon! There is nuance beyond tumor size that impacts staging

Seq 1620: Clinical Staging Methods

Harvest Codes:

Code:	Value:
1	PET/CT
2	CT
3	Brain CT
4	Brain MRI
5	Invasive Mediastinal Staging Performed

- This is not a comprehensive list
- Notably, biopsy of the mass itself is not accounted for
  - CT Guided Bx of Lesion
  - Bronchoscopic Bx of Lesion
  - EBUS of Lesion w/o eval of mediastinum



TNM 8th - Primary tumor characteristics	
T_x	Tumor in sputum/bronchial washings but not be assessed in imaging or bronchoscopy
T_0	No evidence of tumor
T_{is}	Carcinoma in situ
T_1	≤ 3 cm surrounded by lung/visceral pleura, not involving main bronchus
$T_{1a(mi)}$	Minimally invasive carcinoma
T_{1a}	≤ 1 cm
T_{1b}	> 1 to ≤ 2 cm
T_{1c}	> 2 to ≤ 3 cm
T_2	> 3 to ≤ 5 cm *or* involvement of main bronchus without carina, regardless of distance from carina or invasion visceral pleural *or* atelectasis or post obstructive pneumonitis extending to hilum
T_{2a}	>3 to ≤4cm
T_{2b}	>4 to ≤5cm
T_3	>5 to ≤7cm in greatest dimension *or* tumor of any size that involves chest wall, pericardium, phrenic nerve *or* satellite nodules in the same lobe
T_4	> 7cm in greatest dimension *or* any tumor with invasion of mediastinum, diaphragm, heart, great vessels, recurrent laryngeal nerve, carina, trachea, oesophagus, spine *or* separate tumor in different lobe of ipsilateral lung
N_1	Ipsilateral peribronchial and/or hilar nodes and intrapulmonary nodes
2	Ipsilateral mediastinal and/or subcarinal nodes
3	Contralateral mediastinal or hilar; ipsilateral/contralateral scalene/ supraclavicular
M_1	Distant metastasis
M_{1a}	Tumor in contralateral lung or pleural/pericardial nodule/malignant effusion
M_{1b}	Single extrathoracic metastasis, including single non-regional lymphnode
M_{1c}	Multiple extrathoracic metastases in one or more organs

Seq 1810: Lung Cancer T Stage

- TX/T0 are not options
- This is intentional, if clinical staging was not performed you would code ‘no’ to 1600 and this sequence will not open.
- Clinical TX/T0 are not indicative of cancer, they are not captured as lung cancer cases.
- Your clinical T stage will not explicitly come from a CT or PET report. It should come from your surgeon’s pre-op note. If they do not indicate clinical staging in their notes, it can be determined using the chart linked in the training manual.

PFTs

What does the training manual say about FEV1?

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

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

PFTs

What does the training manual say about DLCO?

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

The lowest value for DLCO uncorrected should be captured. A PFT may report DLCO_SB, DLCOcSB, DLCO/VA. The difference in the DCLO SB (simple DCLO) and the DCLOcSB is that the DCLOcSB is corrected for the hgb value. In this scenario, capture the lowest DLCO_SB or DLCO/VA value. Do not use the DLCOcSB since it is a corrected value.

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

Nov 2023: While DLCO/VA and KCO are the same value, they are not the same as an uncorrected DLCO. If an uncorrected DLCO is available, please enter the uncorrected DLCO. If you do not have an uncorrected DLCO, you may alternatively enter DLCO/VA or KCO.

Substance Use Screening

Covered extensively in November webinar, please refer to that presentation as needed.

Absence of Mortality/Readmission

Absence of readmission and/or mortality cannot be inferred by absence of documentation. For example, if the surgeons see a patient at 2 weeks post-op and there are no notes in your EHR prior to 30 days (including EHR's that allow for access to some other institutions EHR's – i.e CareEverywhere) you must have a process in place whereby you verify that no readmission or death occurred. For example: contact PCP office, home health, contact patient. This process must be documented for audit purposes.

Open Discussion

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!

Upcoming GTSD Webinars

Monthly Webinars

- February 12 @ 2:30ET (1:30CT)
- March 12 @ 2:30ET (1:30CT)
- April 9 @ 2:30ET (1:30CT)

Contact Information

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Helpdesk Support

(Harvest Questions/Analysis Report Questions)

- STSDB_helpdesk@sts.org

Database Operational Questions

(Database Participation, Contracts, etc.)

- STSDB@sts.org

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