Society of Thoracic Surgeons

General Thoracic Surgery Database Monthly Webinar

March 12, 2025

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

Agenda

- Welcome and Introduction
- STS Updates
- Data Manager Education (Ruth Raleigh, GTSD Consultant)
  - Abstracting Lung Cancer Pathology Reports
- Q&A

STS Updates

- 2025 Harvest Schedule
  - **Spring 2025 officially closed on 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

- March Training Manual to be posted by Friday, 3/14

- 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 (Fall 24, Spring 25 etc.)
  - Screenshots are helpful!!

Clinical Question Submission Form (FAQ)

Full Name *

Email *

Phone *

Participant ID #

Database Version *

- Select -

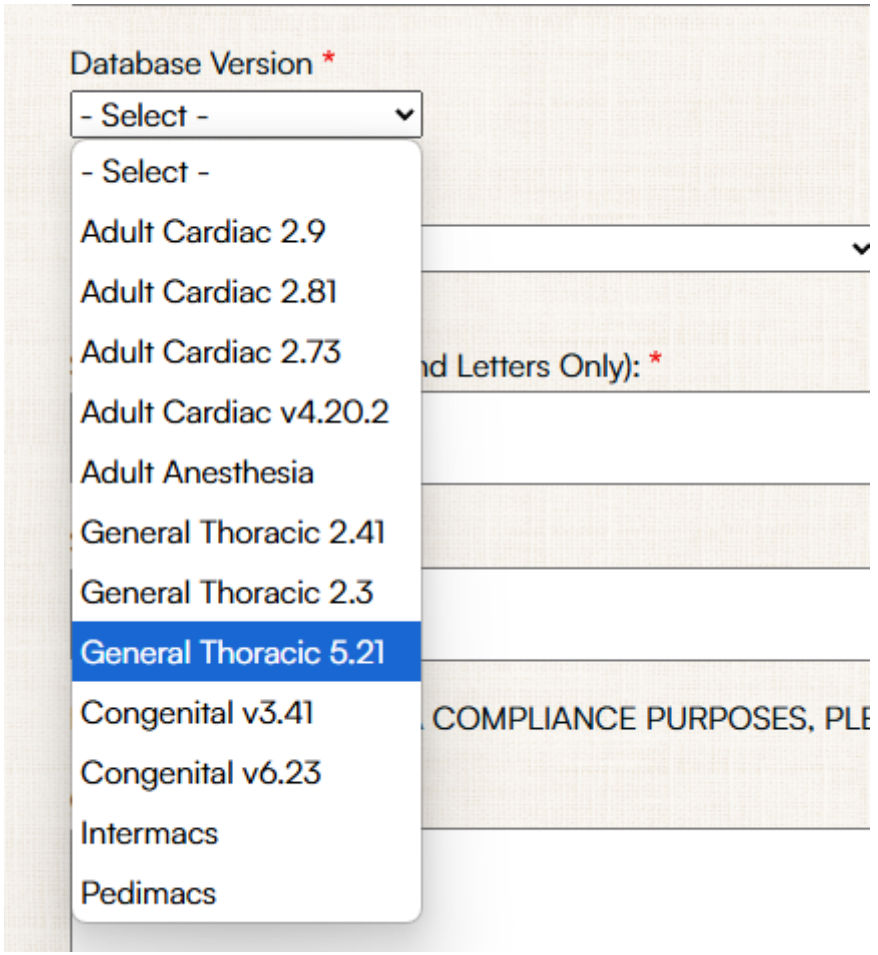
- Select -

Sequence # (Numbers and Letters Only): *

Short Field Name:

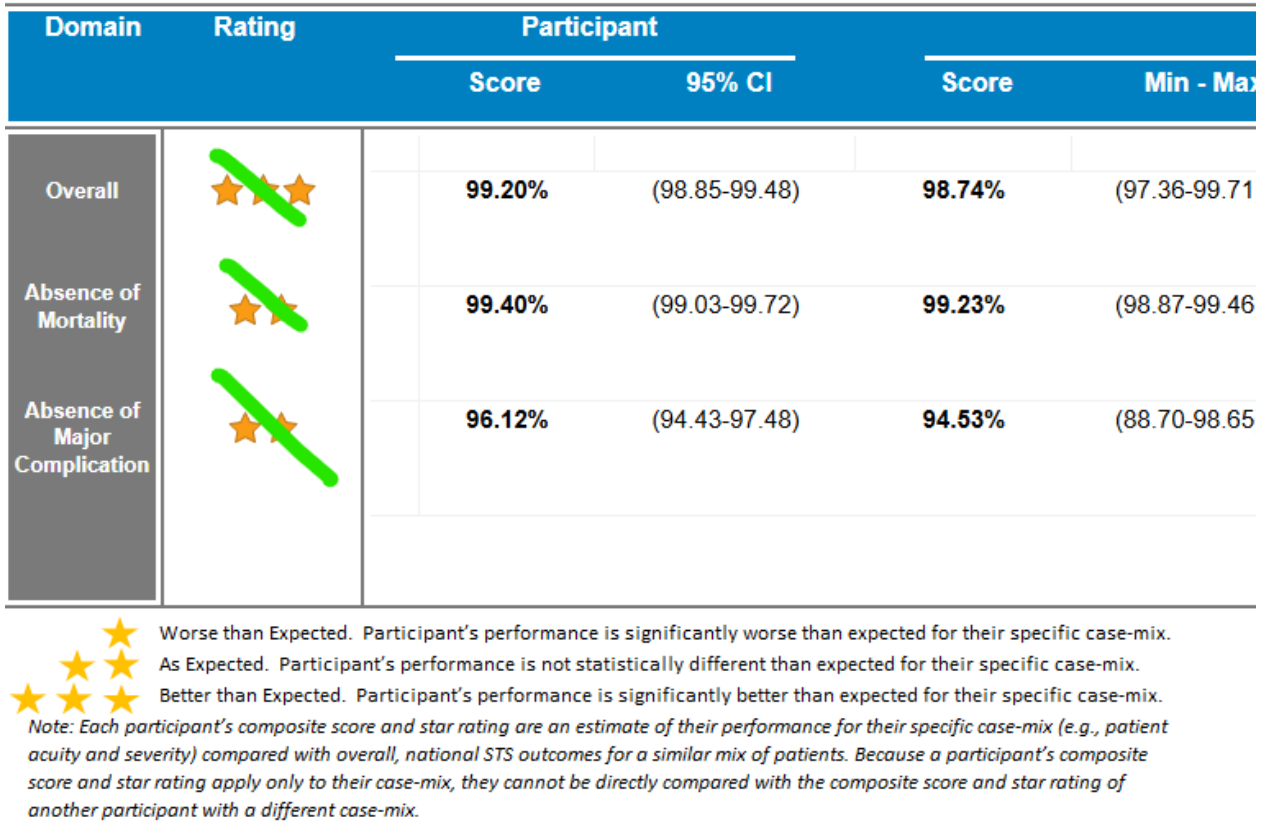
IMPORTANT: FOR HIPAA COMPLIANCE PURPOSES, PLEASE NOTE THAT ANY PATIENT IDENTIFYING INFORMATION[1] SHOULD BE REDACTED FROM THIS SUBMISSION.

Question: *



GTSD Reporting Updates

- Effective Spring 25 Harvest
- Updates will be implemented in both Participant reports and Public Reporting
- Remove Star rating graphics for both esophagectomy and lung resection composite measures
- Will continue to use the three-category analytic descriptions: ***Better Than Expected, As Expected, Worse Than Expected***



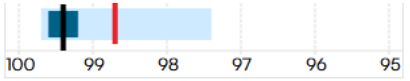
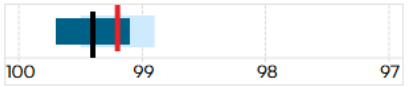
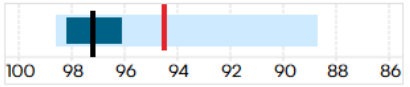
Domain	Rating	Participant Score	Participant 95% CI	Score	Min - Max
Overall	★★★	**99.20%**	(98.85-99.48)	**98.74%**	(97.36-99.71
Absence of Mortality	★★	**99.40%**	(99.03-99.72)	**99.23%**	(98.87-99.46
Absence of Major Complication	★★	**96.12%**	(94.43-97.48)	**94.53%**	(88.70-98.65

★ Worse than Expected. Participant's performance is significantly worse than expected for their specific case-mix.
★★ As Expected. Participant's performance is not statistically different than expected for their specific case-mix.
★★★ Better than Expected. Participant's performance is significantly better than expected for their specific case-mix.

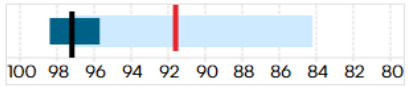
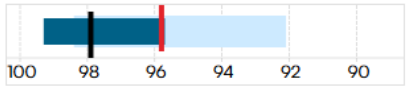
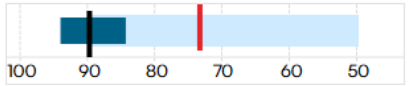
Note: Each participant's composite score and star rating are an estimate of their performance for their specific case-mix (e.g., patient acuity and severity) compared with overall, national STS outcomes for a similar mix of patients. Because a participant's composite score and star rating apply only to their case-mix, they cannot be directly compared with the composite score and star rating of another participant with a different case-mix.

GTSD Public Reporting

(effective Spring 25)

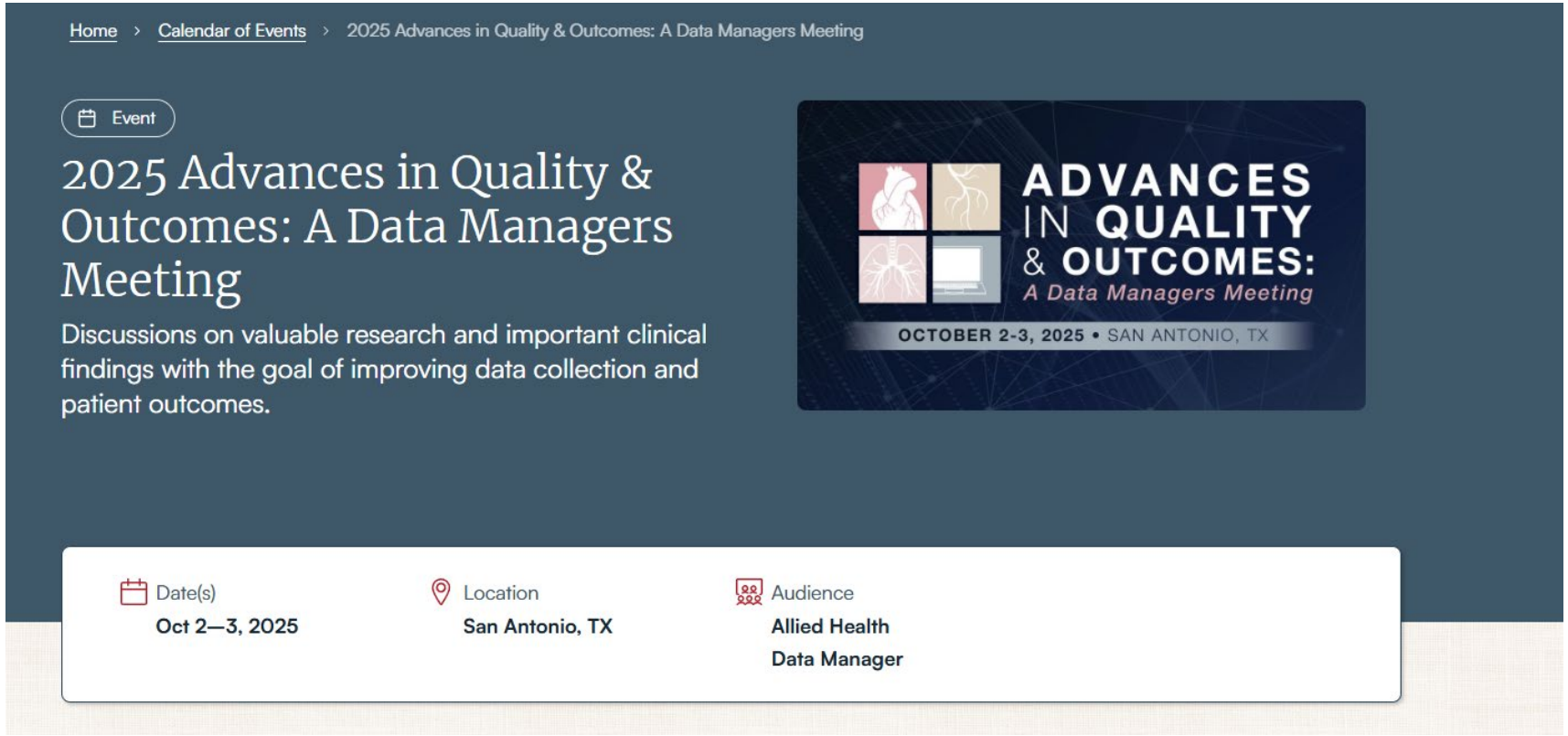
Overall Composite Score	99.4% (99.2 - 99.6)		
Absence of Operative Mortality	99.4% (99.1 - 99.7)		
Absence of Major Morbidity	97.2% (96.1 - 98.2)		

Esophagectomy Composite Measure Rating (July 2021 - June 2024)

Overall Composite Score	97.2% (95.7 - 98.4)		
Absence of Operative Mortality	97.9% (95.7 - 99.3)		
Absence of Major Morbidity	89.7% (84.3 - 94.0)		

AQO 2025

- **GTSD and CHSD Sessions: Thursday, October 2nd**
- ACSD Session: Friday, October 3rd
- Grand Hyatt San Antonio Riverwalk
- AQO session proposal form deadline is April 18th
- Both In Person and Virtual options will be available
- Cost information will be shared as soon as it's available
- AQO details: 2025 AQO: A Data Managers Meeting



STS Education
Ruth Raleigh
(GTSD Consultant)

ABSTRACTING LUNG CANCER PATHOLOGY REPORTS

DATA COLLECTION FORM

Descriptions are intended to be educational, take pathology from pathology reports. Do not create your own pathological staging.

Lung - FINAL Pathological Staging ***To be completed if lung resection performed. (8th Edition)***		
Lung Cancer Tumor Present:	☐ Yes ☐ No *(If yes ↓)*	
	Indicate Final Pathological Tumor Staging	
(If Cancer Tumor Present→) **	☐ 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*	☐ T0 *No evidence of primary tumor*
	☐ Tis *Carcinoma in situ; squamous cell carcinoma in situ (SCIS); Adenocarcinoma in situ (AIS): adenocarcinoma with pure lepidic pattern, ≤3 cm in greatest dimension*	☐ T1mi *Minimally invasive adenocarcinoma: adenocarcinoma (≤3 cm in greatest dimension) with a predominantly lepidic pattern and ≤5 mm invasion in greatest dimension.*
	☐ 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.*	☐ T1b *Tumor > 1 cm but ≤ 2 cm in greatest dimension*
	☐ T1c *Tumor > 2 cm but ≤ 3 cm in greatest dimension*	
	☐ 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.*	☐ T2b *Tumor > 4 cm but ≤ 5 cm at greatest dimension*
	☐ 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*	☐ 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 ☐ Yes ☐ No

SEQ 1841: ATYPICAL CASE MANAGEMENT

Sept 2021: If the patient had neoadjuvant therapy and had a complete response with the final surgical pathology report indicating T0 or no T stage is provided, then code yes to seq 1841 "ClinStageTumorPres ' and code T0 for seq 1850 'PathStageLungT'.

Oct 2021: In the rare instance that a patient has a wedge resection with a delayed lobectomy; the wedge resection is diagnostic and not required for entry into the GTSD. The lobectomy must be entered as it is the curative resection for the lung cancer. Use the combined final pathology reports from the lobectomy & wedge resection for completion of all pathological staging information. Seq 1841 will be coded as 'yes'.

Addendum electronically signed by Clinton A Ewing, MD on 10/30/2024 at 16:02

Synoptic Checklist

LUNG (LUNG - All Specimens) 8th Edition - Protocol posted: 9/21/2022

SPECIMEN	
Procedure	Lobectomy
Specimen Laterality	Right
TUMOR	
Tumor Focality	Single focus
Tumor Site	Lower lobe of lung
Tumor Size	
Total Tumor Size (size of entire tumor)	Greatest Dimension (Centimeters): 4.0 cm
Histologic Type	Invasive squamous cell carcinoma, keratinizing
Histologic Grade	G2, moderately differentiated
Visceral Pleura Invasion	Not identified
Direct Invasion of Adjacent Structures	Not applicable (no adjacent structures present)
Treatment Effect	No known presurgical therapy
Lymphovascular Invasion	Present
MARGINS	
Margin Status for Invasive Carcinoma	All margins negative for invasive carcinoma
Closest Margin(s) to Invasive Carcinoma	Bronchial
Distance from Invasive Carcinoma to Closest Margin	2.0 cm
Margin Status for Non-Invasive Tumor	Not applicable
REGIONAL LYMPH NODES	
Lymph Node(s) from Prior Procedures	No known prior lymph node sampling performed
Regional Lymph Node Status	All regional lymph nodes negative for tumor
Number of Lymph Nodes Examined	7
Nodal Site(s) Examined	4R: Lower paratracheal 8R: Para-esophageal (below carina) 7: Subcarinal

PATHOLOGIC STAGE CLASSIFICATION (pTNM, AJCC 8th Edition)

Reporting of pT, pN, and (when applicable) pM categories is based on information available to the pathologist at the time the report is issued. As per the AJCC (Chapter 1, 8th Ed.) it is the managing physician's responsibility to establish the final pathologic stage based upon all pertinent information, including but potentially not limited to this pathology report.

pT Category	pT2a
pN Category	pN0

How would you code lung cancer tumor present?

A. Yes ★
B. No
C. Unsure

Addendum electronically signed by Clinton A Ewing, MD on 10/30/2024 at 16:02

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pT Category	pT2a
pN Category	pN0

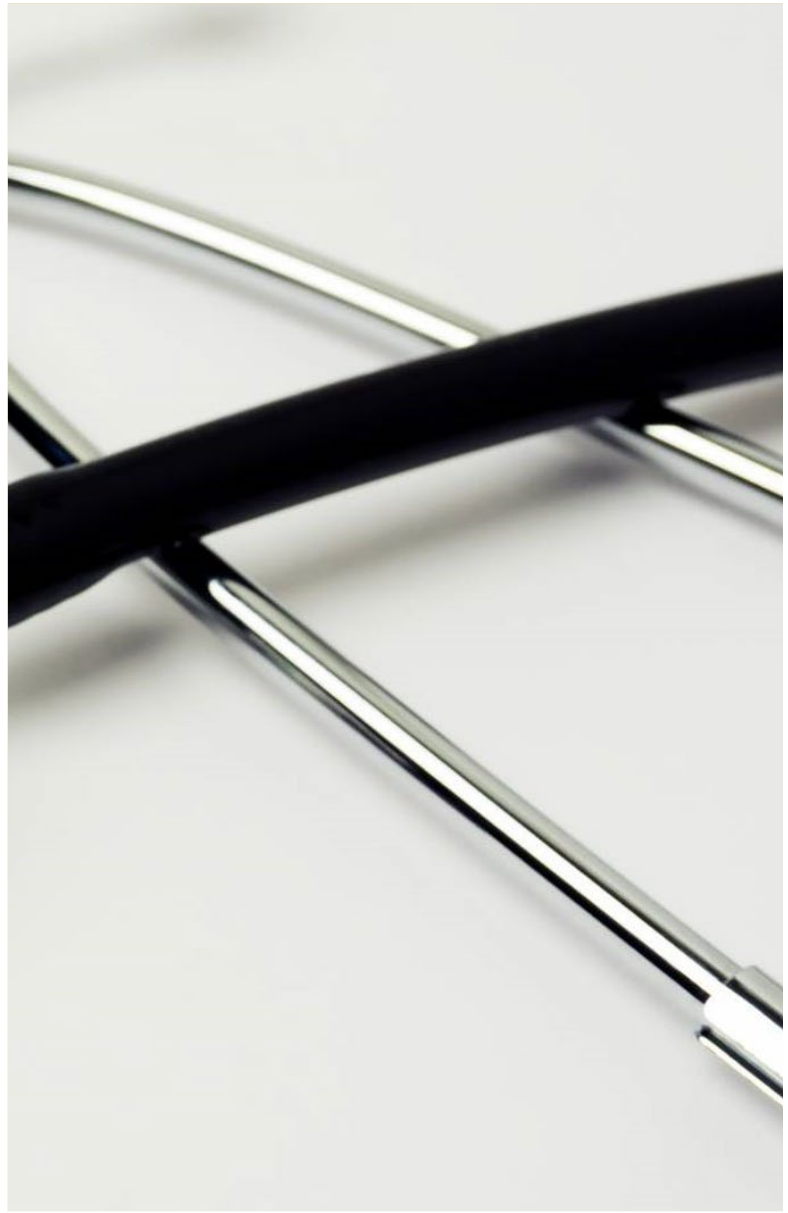
How would you code pathological T stage?

A. T0
B. T1a
C. T2a ★
D. Unsure

WHAT ABOUT CASES WITH MULTIPLE TUMORS?

First, determine if they are synchronous primary tumors or if the patient has multiple tumors all related to the same primary (i.e. metastatic disease).

Sometimes this can be tough, you may have to call your pathologist and/or surgeon for support.



TRAINING MANUAL GUIDANCE ON ABSTRACTING SYNCHRONOUS PRIMARIES

If two or more tumors are dissected out during the same procedure, code the most aggressive disease noted on the pathology report. Consultation with pathology may be necessary to determine.

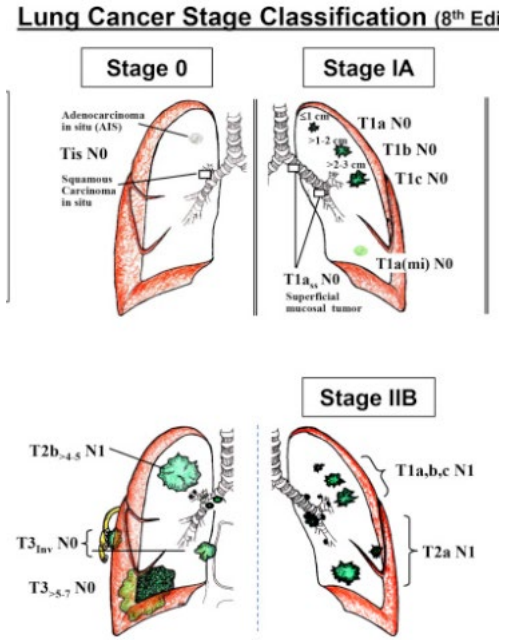
Dec 2021: For pathology reports with multiple tumors the designation 'm' is utilized. The STS does not currently capture that data point, enter the T stage without the 'm'. For example, mpT1b is entered at T1b.

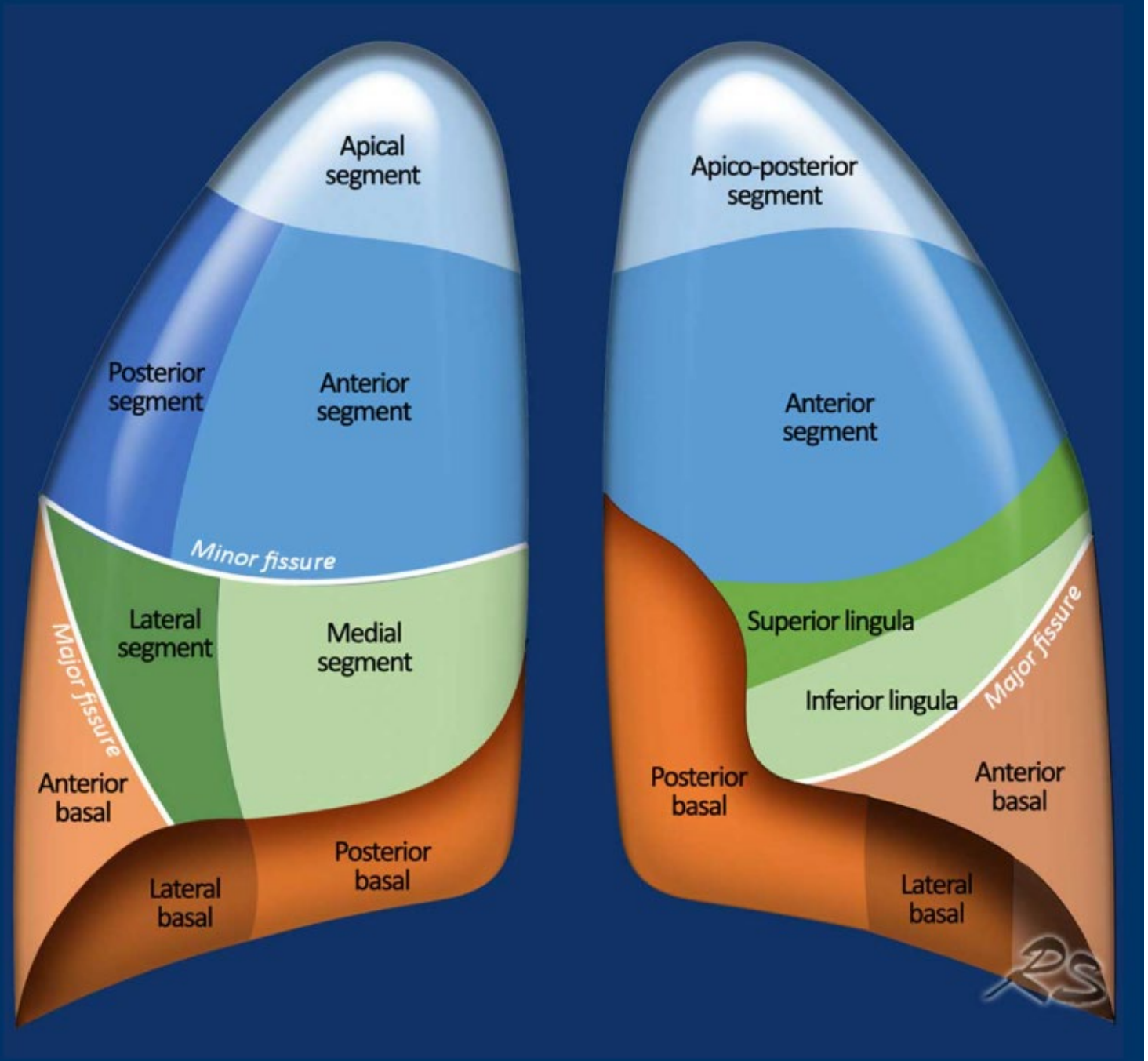
REVIEW EXAMPLE PATHOLOGY REPORT

SYNCHRONOUS PRIMARIES: QUESTION 1

How would you code pathological T-stage for the case study reviewed?

A. T1b
B. T2b
C. Not sure





SYNCHRONOUS PRIMARIES: QUESTION 2

What primary procedure would you enter for this case?

A. Wedge resection

B. Segementectomy ★

C. Not sure

https://radiologyassistant.nl/chest/lung-anatomy/lung-segments

Pathological M Stage

SeqNo: 2060
Long Name: Lung CA Metastases
Short Name: PathStageLungM
Format: Text (categorical values specified by STS)

Definition: Indicate the appropriate descriptor for the lung cancer metastases based on final pathology report.

Most patients with metastatic lung cancer do not go to the OR for therapeutic resections, therefore pathological M is overwhelmingly captured as M0.

However, a surgeon will sometimes take a patient with a known single brain or adrenal met to the OR for a therapeutic resection and then the isolated mets will be separately managed.

In these rare instances, capture the metastatic disease in pathological m even if MX is listed on your pathology report.

Otherwise, MX is captured as M0.

Lung CA Histology:	☐ Adenocarcinoma	☐ Squamous cell	☐ Large cell
	☐ Small cell	☐ Mixed	☐ Low Grade Neuroendocrine (typical carcinoid)
	☐ Intermediate grade neuroendocrine, atypical carcinoid	☐ Carcinoma in situ	☐ Other

Sometimes it's tough to know if you really have a lung cancer case:

Comment

Immunohistochemical stains were performed on block H3 to better characterize the tumor and they demonstrate the tumor cells are positive for CK7, CK20 and SATB2, and negative for CK5, CDX2, GATA 3, Napsin, P40, P63, PAX8 and TTF-1, supporting the diagnosis of lung invasive adenocarcinoma enteric type. Clinical correlation is recommended to rule out possible lower GI tract primary.

Synoptic Checklist

LUNG

8th Edition - Protocol posted: 9/21/2022LUNG: RESECTION - All Specimens

SPECIMEN	
Procedure	Lobectomy
Specimen Laterality	Right
TUMOR	
Tumor Focality	Single focus
Tumor Site	Middle lobe of lung
Tumor Size	
Total Tumor Size (size of entire tumor)	Greatest Dimension (Centimeters): 1.5 cm
Histologic Type	Enteric-type adenocarcinoma
Histologic Patterns Present	Solid
Histologic Grade	G3, poorly differentiated
Spread Through Air Spaces (STAS)	Not identified
Visceral Pleura Invasion	Not identified
Direct Invasion of Adjacent Structures	Not applicable (no adjacent structures present)
Treatment Effect	No known presurgical therapy
Lymphovascular Invasion	Not identified
MARGINS	

7: Subcarinal

PATHOLOGIC STAGE CLASSIFICATION (pTNM, AJCC 8th Edition)	
Reporting of pT, pN, and (when applicable) pM categories is based on information available to the pathologist at the time the report is issued. As per the AJCC (Chapter 1, 8th Ed.) it is the managing physician's responsibility to establish the final pathologic stage based upon all pertinent information, including but potentially not limited to this pathology report.	
pT Category	pT1b
pN Category	pN0

Considerations when determining if histology is reflective of a lung cancer case:

1. Were lung cancer staging conventions used on your pathology report?
    - AJCC 8th edition for lung cancer staging
    - Do you have a synoptic report that includes the lung checklist
2. Histology type
3. If uncertain, call your pathologist or surgeon for clarification!

If you have completed the final pathological staging sequences, should your primary category of disease ever be ‘lung nodule’ or ‘lung mass’?

A. Yes
B. No
C. Unsure

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

- April 9 @ 2:30ET (1:30CT)
- May 14 @ 2:30ET (1:30CT)

Contact Information

Leigh Ann Jones, STS National Database Manager, Congenital and General Thoracic

- Ljones@sts.org
- 312-202-5822

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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