



Society of Thoracic Surgeons

General Thoracic Surgery Database
User Group Call

July 27, 2022

GTSD User Group Call

- Welcome and Introductions
- STS Update
- Analysis Report Review (Katie Lothrop)
- IQVIA Update
- User Feedback
 - Include Ticket Number/Case Number



STS Updates

- **Training Manual for July posted**
 - Have questions?? Please submit a FAQ
- **Spring 2022 Analysis Results Released**
 - Lung and Esophageal Composite Reports posted within the platform on July 11th
 - Participant Results for Benchmark and Legacy Reports will be released separately
 - UAT testing begins this week
 - Communication will be sent when available
 - Report related questions should be directed to gtsdtechsupport@iqvia.com
- **Fall 2022 Harvest Underway**
 - Harvest closes Friday, September 9 @11:59pm ET
 - Opt Out by Tuesday, September 13
 - Includes OR dates up through June 30, 2022 (Q1 and Q2)
 - To ensure we have equitable comparisons between the participant risk adjusted results and STS benchmarks, sites need to have at least one case within the new 6-month timeframe to receive risk adjusted results
 - Submit early and often!!!

STS Updates

- **IQVIA Platform Access**

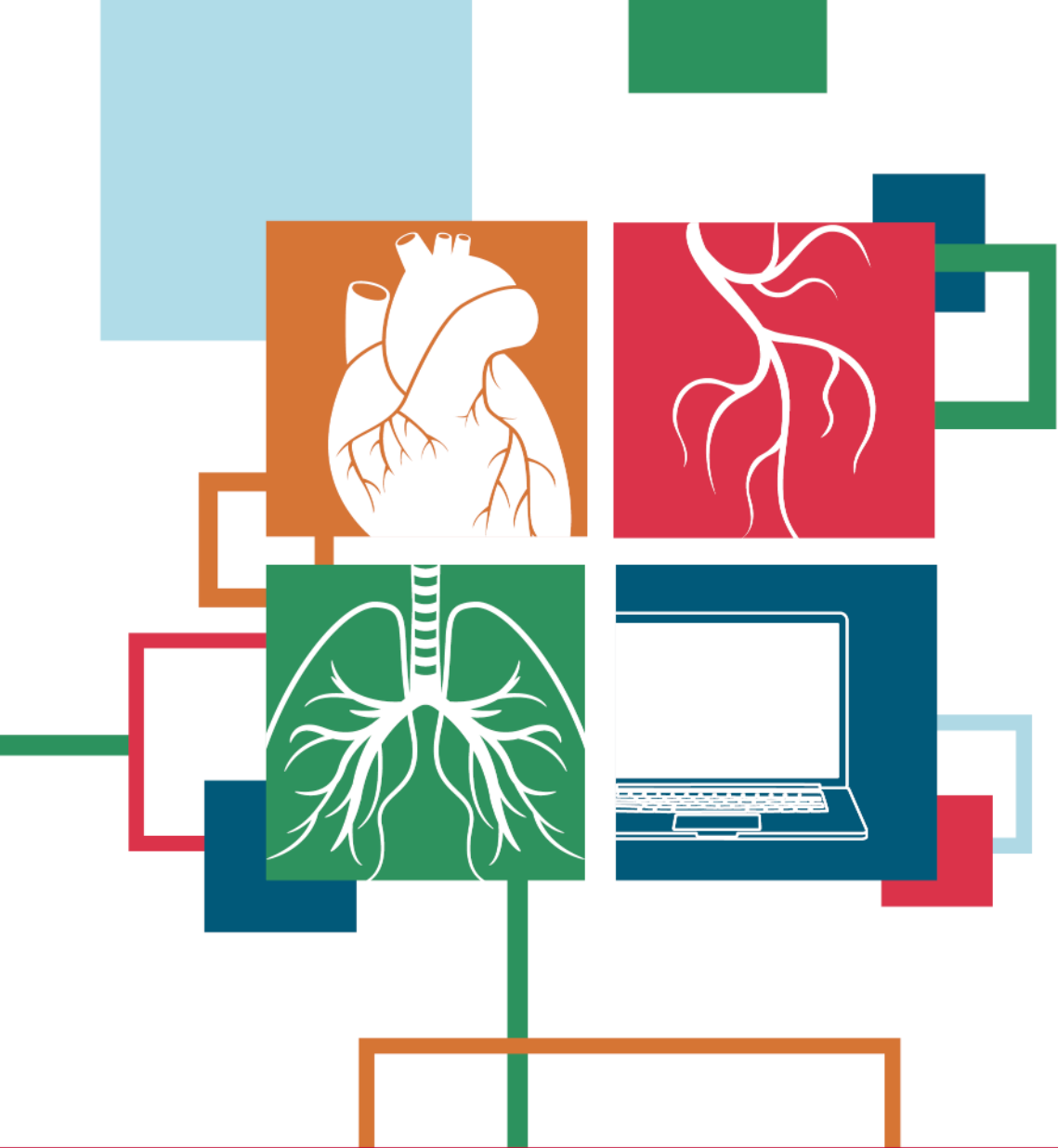
- Adding new user accounts or deactivating current user access
 - Complete the STS Participant Contact Form (<https://www.sts.org/sts-participant-contact-form>)
 - Contact STSDB@sts.org for assistance

- **GTSD Public Reporting**

- Public Reporting Website was updated on July 11th
- The updated website utilizes results from Fall 2021 Harvest (July 1, 2018 – June 30, 2021)
- New features include graphed participant credible intervals, interactive maps, and enhanced search functionality
- Questions should be directed to Sydney Clinton (sclinton@sts.org)

- **2022 Audit Underway**

- Audit Notification and Instruction Letters have been sent – STS audit webpage has been updated with 2022 audit details
- Selected sites please reach out to CRS with audit related questions.



ADVANCES IN QUALITY & OUTCOMES: A Data Managers Meeting

October 26-28, 2022 ■ PROVIDENCE, RHODE ISLAND



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ADVANCES IN QUALITY & OUTCOMES: A Data Managers Meeting

October 26-28, 2022 ■ PROVIDENCE, RHODE ISLAND

AQO Registration is Open!

Receive Early Bird Registration Pricing through Friday, August 26.

STS MEMBER	Early Bird (August 26, 2022)	Standard
One Track	\$550	\$650
Two Tracks	\$900	\$1,100
Multi-Day (Three Tracks)	\$1,150	\$1,450
Virtual Pass	\$300	\$300

NON-MEMBER	Early Bird (August 26, 2022)	Standard
One Track	\$650	\$750
Two Tracks	\$1,100	\$1,300
Multi-Day (Three Tracks)	\$1,450	\$1,750
Virtual Pass	\$400	\$400



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Wednesday, October 26, 2022 – General Thoracic Session

	In Person	Virtual Pass
• In-person sessions with live Q&A	✓	
• On-demand content (available mid-October)	✓	✓
• Recorded archive of in-person sessions (available mid-November)	✓	✓
• Breakfast, lunch, and refreshment breaks	✓	
• Personal interactions and networking with peers	✓	
• Networking Reception with speakers, vendors, and colleagues	✓	
• Face-to-face time with exhibitors	✓	
• Complete exhibitor listing	✓	✓
• Exhibit Hall giveaways and Passport to Prizes	✓	
• AQO Hot Topics Webinar (in January)	✓	✓
• Digital conference materials (PowerPoint presentations, handouts, and case scenarios)	✓	✓
• Opportunity to view and vote on your favorite e-poster	✓	✓
• Continuing Education/CEU Credits	✓	✓
• Explore the sights and sounds of Providence, Rhode Island	✓	



**The Society
of Thoracic
Surgeons**

**ADVANCES IN QUALITY & OUTCOMES:
A Data Managers Meeting**
October 26-28, 2022 ■ PROVIDENCE, RI



- Educational sessions and social events will take place at the Rhode Island Convention Center (1 Sabin St, Providence, RI 02903).
- A block of rooms have been reserved at the Omni Providence Hotel (1 West Exchange St., Providence, RI 02903). The special AQO group rate of \$259, plus state and local taxes, is guaranteed through **Tuesday, October 4**, or until the group block is sold out.
- [Reserve online](#)
- Call 401-598-8000. Be sure to reference “AQO” or “Advances in Quality and Outcomes.”



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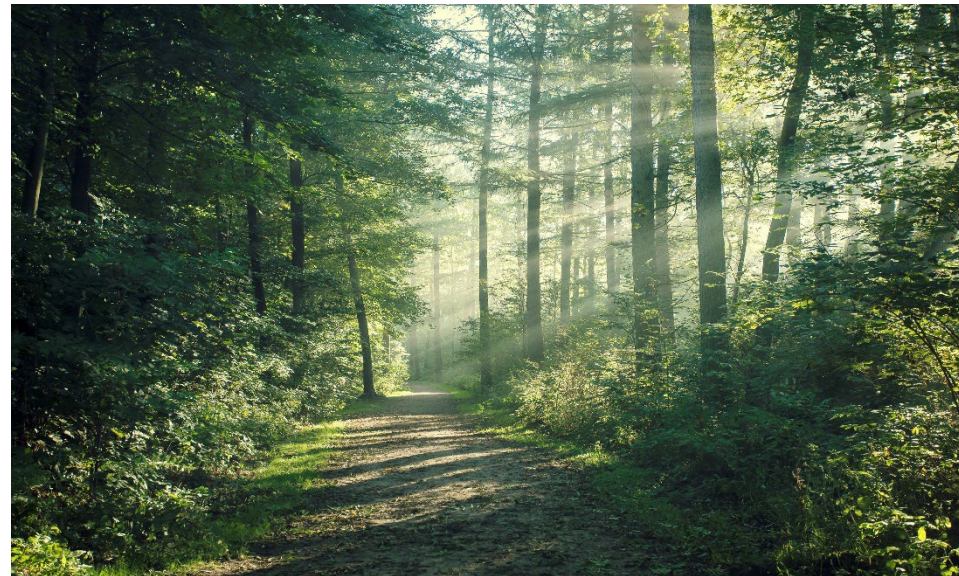


**The Society
of Thoracic
Surgeons**

**ADVANCES IN QUALITY & OUTCOMES:
A Data Managers Meeting**
October 26-28, 2022 ■ PROVIDENCE, RI



STS AQO IS GOING GREEN!!!!
All materials will be posted and
available for download.



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Analysis Report Review

Katie Lothrop

STS Core Group

Providence Portland Medical Center

Education



Harvest Report Overview





**The Society
of Thoracic
Surgeons**

**General Thoracic Surgery Database
Data Analyses of The Society of Thoracic Surgeons**

Participant: [REDACTED]

STS Reporting Period Ending Dec 2021

Lung Cancer

[Lobectomy STS/NIS Compare](#)

[Lobectomy Composite Rating](#)

[Lobectomy Composite Rating Details](#)

[Lung Cancer Staging Procedures](#)

[Lobectomy Risk Adjusted Outcomes](#)

[Lung Cancer Resection Comp Rating](#)

[Lung Cancer Resection Comp Details](#)

Esophageal Cancer

[Esophagectomy Composite Rating](#)

[Esophagectomy Composite Rating Details](#)

[Esophageal Cancer Staging Procedures](#)

[Esophagectomy Risk Adjusted Outcomes](#)

Participant Performance for Lobectomy Compared to STS and NIS

National Inpatient Sample (NIS)

- Largest, all-payer inpatient database available in the United States
- Provides the most generalizable data to represent national lung cancer resection outcomes

Two outcomes that can be directly compared

- Discharge Mortality (death prior to discharge)
 - Note: STS typically reports on Operative Mortality which is a hospital death, death within 30 days of surgery or discharge to hospice (starting with version V5.21)
- Postoperative LOS

Minimally Invasive Lobectomy for Clinical Stage I Lung Cancer

- Tis cases are included here
- Cancer staging is not available in the NIS, thus no comparison

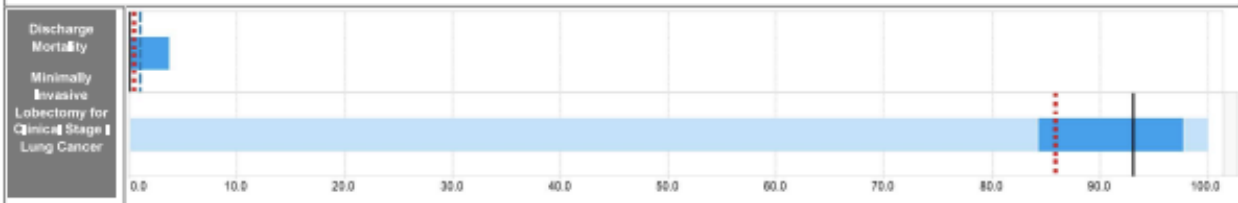
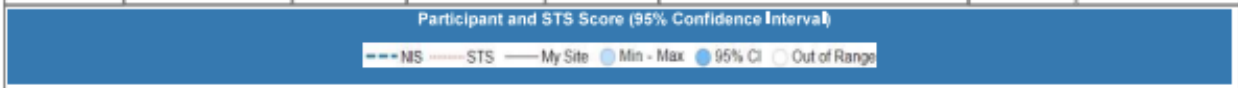


Participant Performance for Lobectomy Compared to STS and NIS Databases



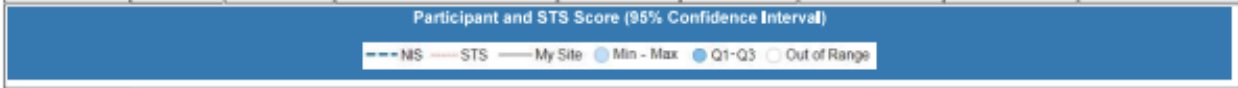
Participant: [REDACTED]
STS Reporting Period Ending Dec 2021

Domain	Participant				STS			NIS			
	N	# of pat	Score	95% CI	Score	N	# of pat	Min - Max	Score	N	# of pat
Discharge Mortality	101	0	0.00%	(0.00-3.70)	0.50%	32205	168	(0.00-0.08)	1.02%	28045	285
Minimally Invasive Lobectomy for Clinical Stage I Lung Cancer	71	66	91.00%	(84.30-97.80)	85.90%	21028	18054	(0.00-100.00)			

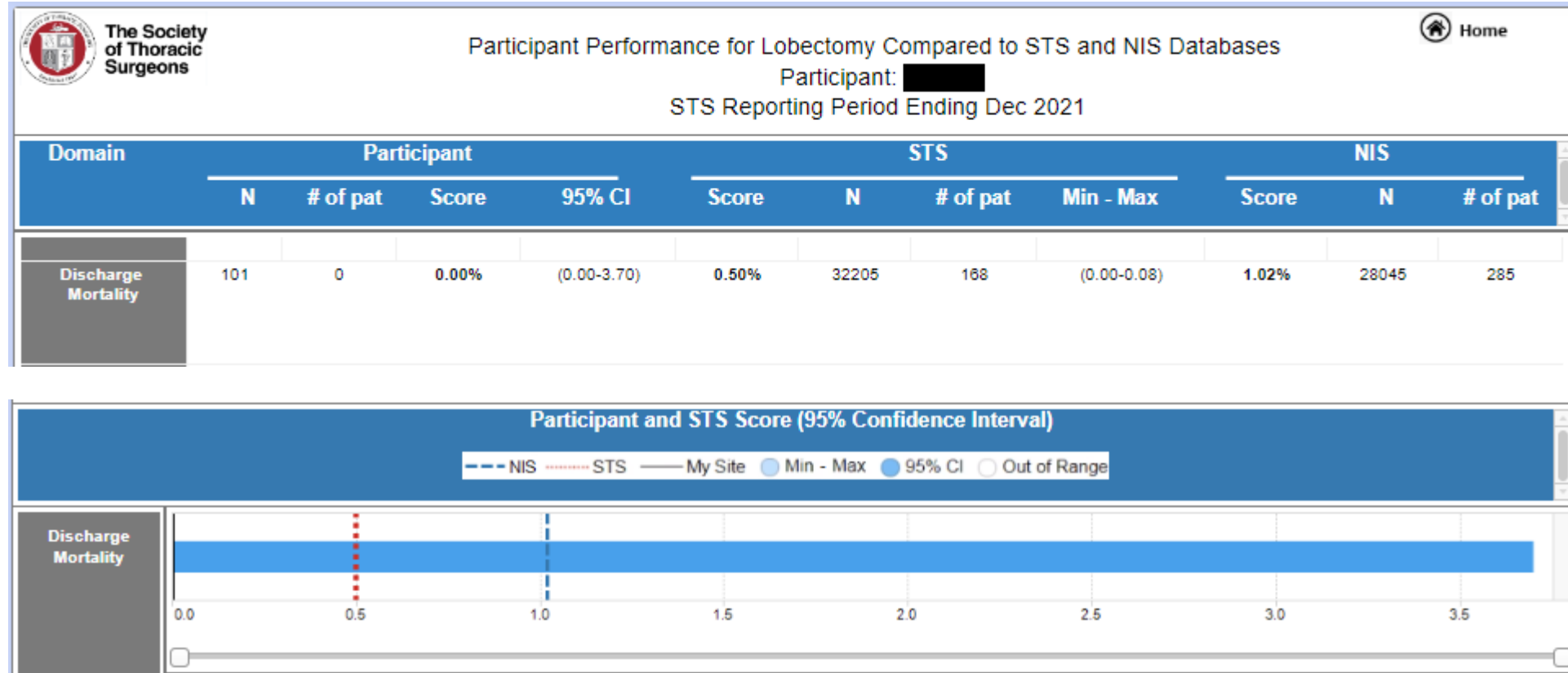


Better than expected results are towards the left Adjust slider for zoom

Domain	Participant				STS			NIS	
	N	Median	Q1	Q3	N	Median	Min - Max	N	Median
Postoperative Length of Stay (Days)	101	2.00	2.00	3.00	32201	3.00	(0.00-344.00)	28,045	3.80

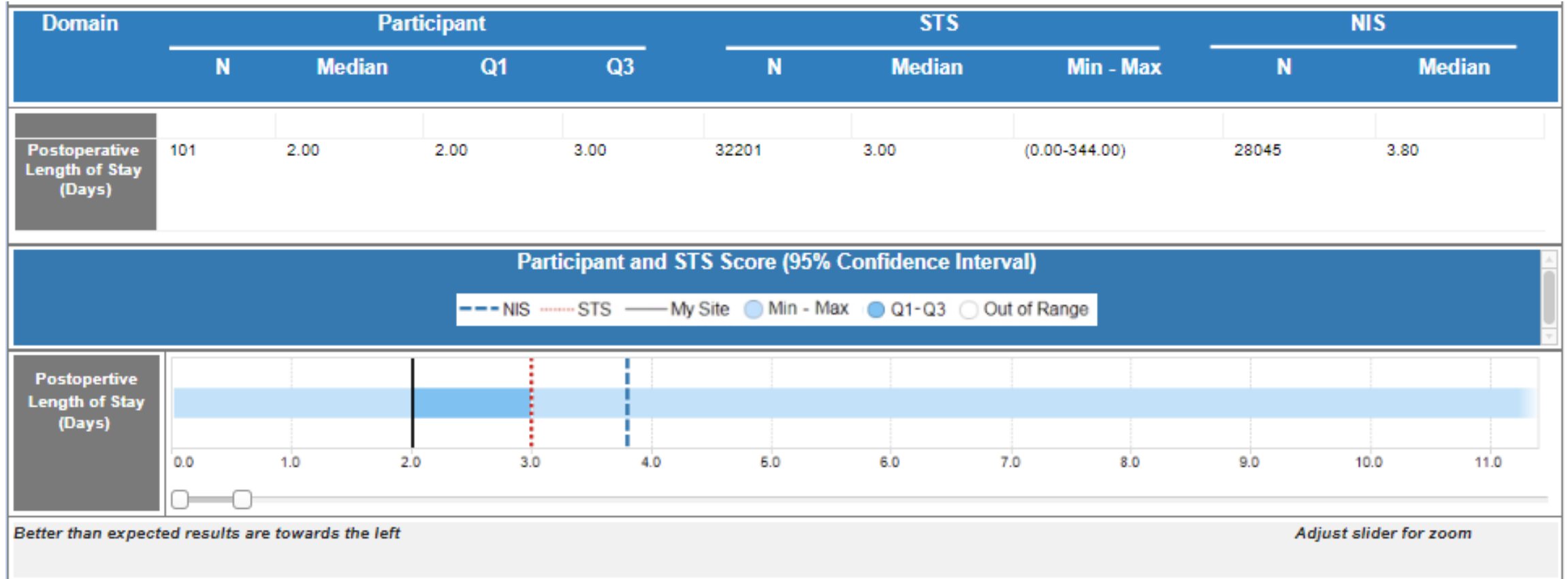


Participant Compared to STS and NIS- Discharge Mortality

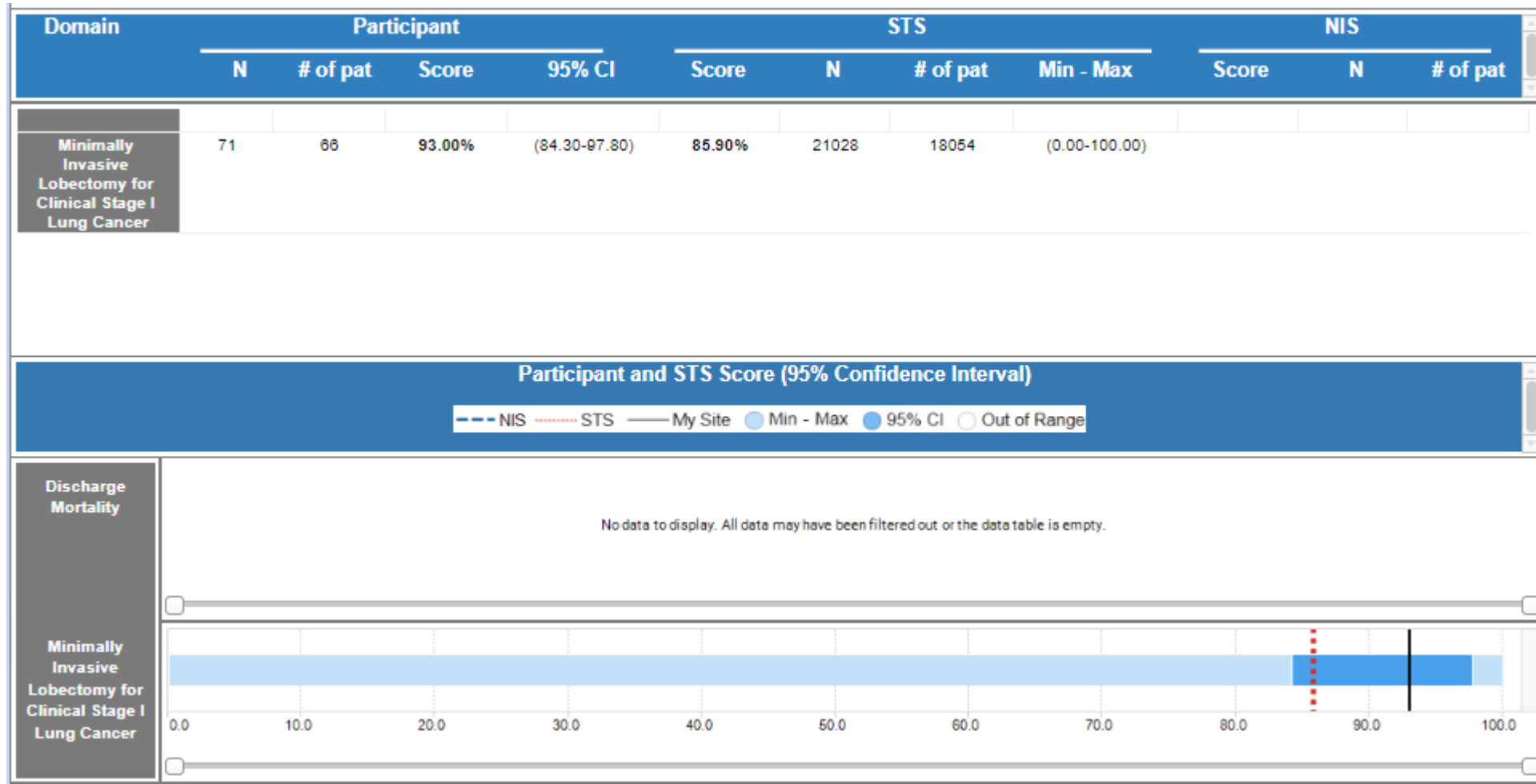


*Better than expected results are towards the left

Participant Compared to STS and NIS- Postoperative LOS



Minimally Invasive Lobectomy for Clinical Stage I Lung Cancer



Lobectomy for Lung Cancer Composite Quality Rating

Inclusion

- COD: Lung Cancer; Upper, Middle, Lower, Unspecified
- Primary Procedure: Open lobectomy (32480) and VATS lobectomy (32663)
- Elective Status

Exclusion

- Records missing any required fields
- Occult or Stage 0 pathological stage
- ASA class V, VI
- ECOG/Zubrod 4,5

Participants with >2% missing or unknown for discharge status/status at 30 days were also excluded

*Participants must have at least 30 eligible lobectomy for primary lung cancer procedures meeting inclusion criteria for the 3-year harvest period to receive a star rating.



Lobectomy for Lung Cancer Composite Quality Rating
 Participant: [REDACTED]
 STS Reporting Period Ending Dec 2021

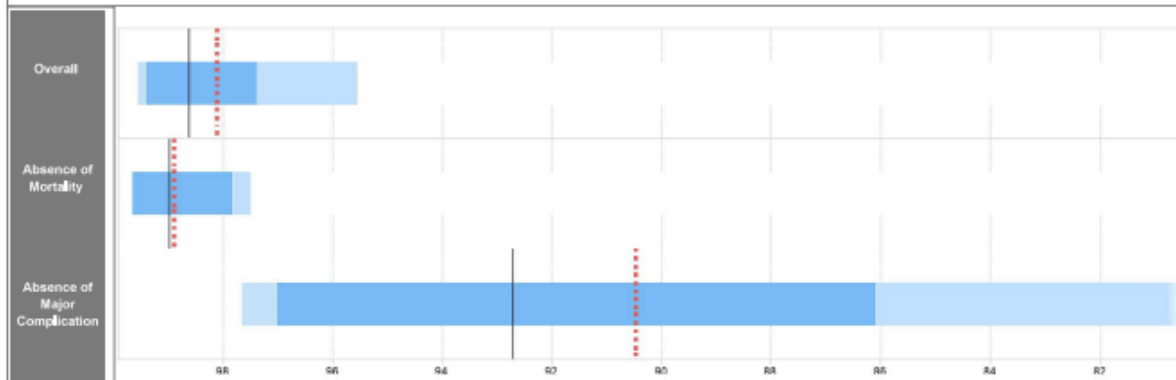
[Home](#)

Domain	Rating	Participant		STS				
		Score	95% CI	Score	Min - Max	25th	Median	75th
Overall	★★	98.62%	(97.35-99.42)	98.10%	(95.51-99.55)	97.76%	98.23%	98.62%
Absence of Mortality	★★	98.99%	(97.79-99.64)	98.89%	(97.47-99.43)	98.77%	98.94%	99.05%
Absence of Major Complication	★★	92.72%	(86.05-97.03)	90.46%	(76.58-97.66)	88.59%	90.99%	92.93%

★ 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.
Star ratings for previous time periods reflect the results obtained at that time.

Domain Participant and STS Score (95% Confidence Interval)

----- STS
 | My Site
 ● Min - Max
 ● 95% CI
 ● Out of Range



Better than expected results are toward the left

Adjust slider for zoom

Lobectomy for Lung Cancer Composite Quality Rating




Domains reported

- Absence of Mortality
- Absence of Major Complication
- Overall (combined)

Major complication endpoint	Seq. no 2.41	Seq. no 5.21.1
Pneumonia	3460	3720
Acute Respiratory Distress Syndrome	3470	3740
Bronchopleural Fistula	3490	3770
Pulmonary Embolus	3500	3780
Initial Ventilator Support > 48 hours	3520	3810
Reintubation	3480	3760
Tracheostomy	3530	3820
Myocardial Infarction	3580	3870
Unexpected Return to the OR	3330	3670

Lobectomy for Lung Cancer Composite Quality Rating

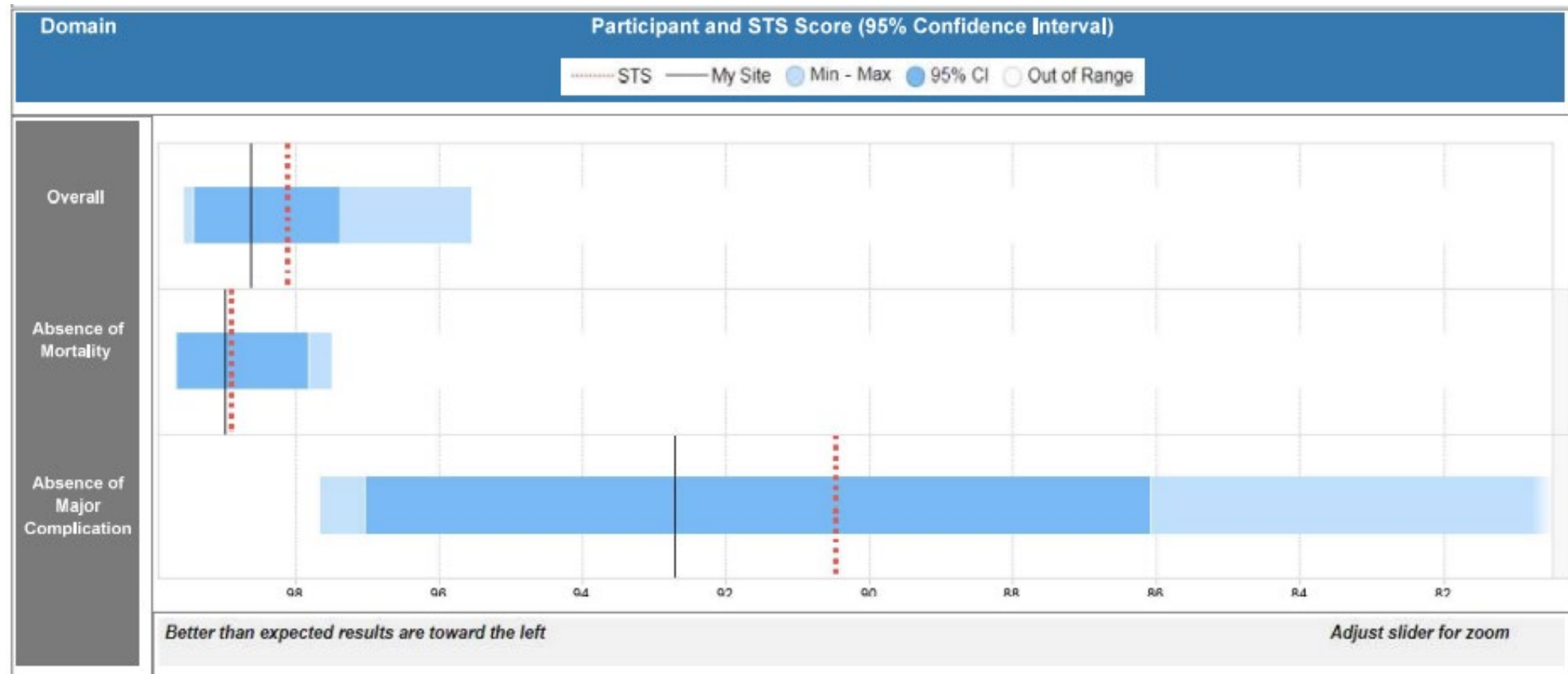
Domain	Rating	Participant		STS				
		Score	95% CI	Score	Min - Max	25th	Median	75th
Overall	★★	98.62%	(97.35-99.42)	98.10%	(95.51-99.55)	97.76%	98.23%	98.62%
Absence of Mortality	★★	98.99%	(97.79-99.64)	98.89%	(97.47-99.43)	98.77%	98.94%	99.05%
Absence of Major Complication	★★	92.72%	(86.05-97.03)	90.46%	(76.58-97.66)	88.59%	90.99%	92.93%

 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.

Star ratings for previous time periods reflect the results obtained at that time.

Lobectomy for Lung Cancer Composite Quality Rating



What do the Star Ratings mean?

-  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.

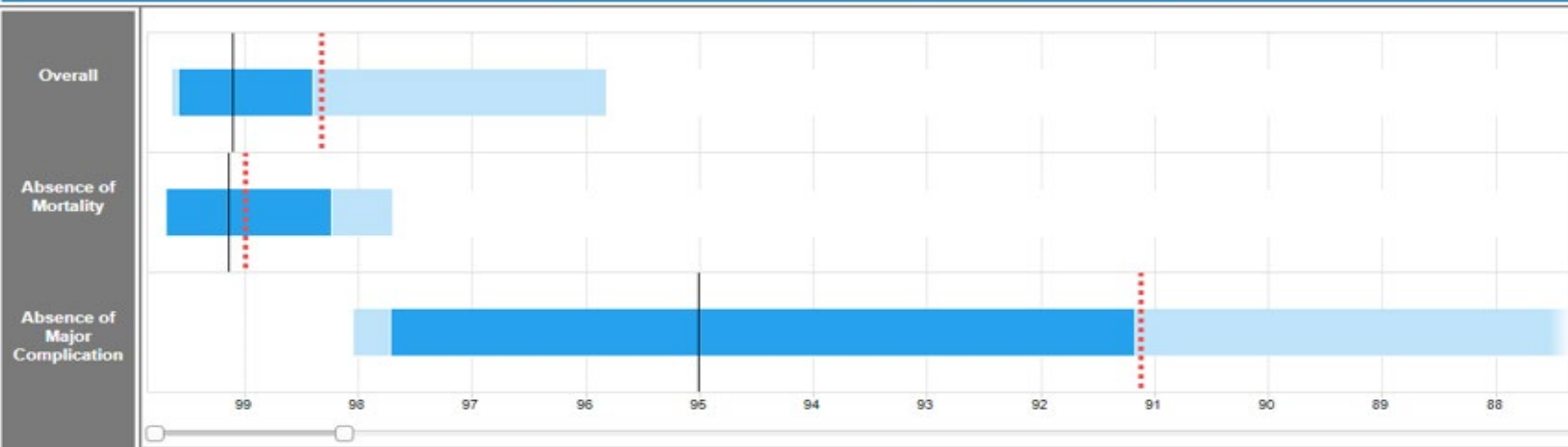
Star ratings for previous time periods reflect the results obtained at that time.



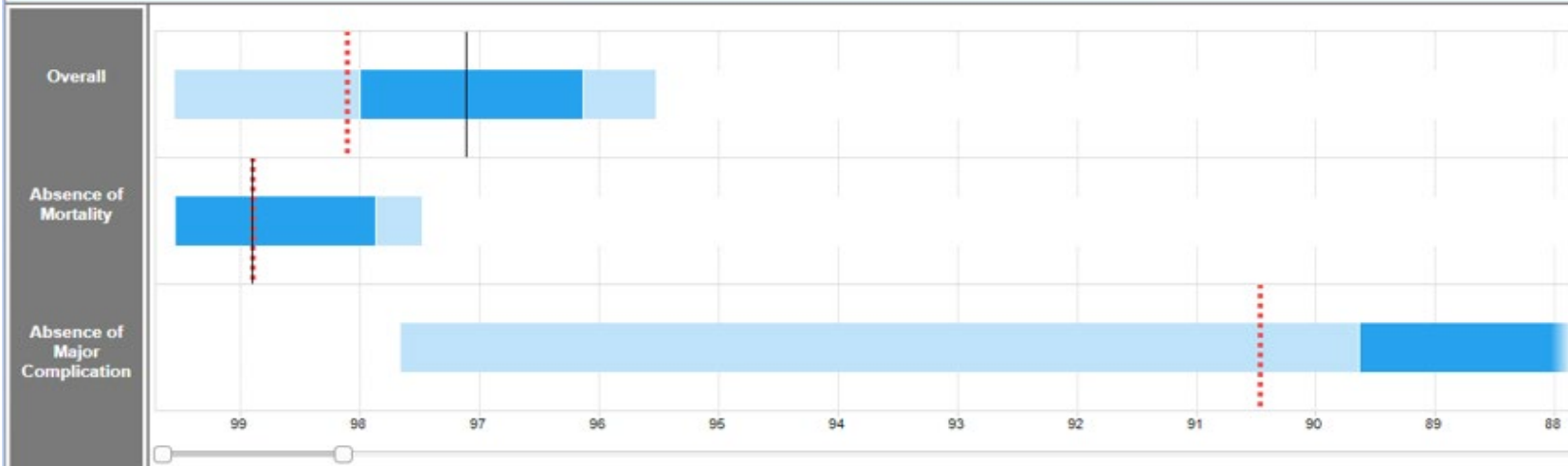
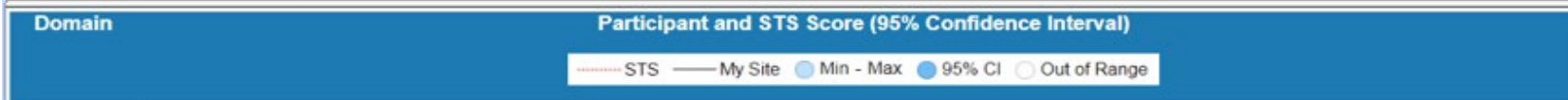
Domain	Rating	Participant		STS				
		Score	95% CI	Score	Min - Max	25th	Median	75th
Overall	★★★★	99.10%	(98.39-99.58)	98.31%	(95.80-99.64)	97.96%	98.43%	98.72%
Absence of Mortality	★★★	99.14%	(98.22-99.68)	98.99%	(97.69-99.46)	98.88%	99.02%	99.13%
Absence of Major Complication	★★★★	95.02%	(91.16-97.72)	91.12%	(79.06-98.03)	89.31%	91.63%	93.57%

Domain Participant and STS Score (95% Confidence Interval)

----- STS
 My Site
 Min - Max
 95% CI
 Out of Range




Domain	Rating	Participant		STS				
		Score	95% CI	Score	Min - Max	25th	Median	75th
Overall	★	97.11%	(96.12-98.00)	98.10%	(95.51-99.55)	97.76%	98.23%	98.62%
Absence of Mortality	★★	98.90%	(97.85-99.54)	98.89%	(97.47-99.43)	98.77%	98.94%	99.05%
Absence of Major Complication	★	84.99%	(79.70-89.64)	90.46%	(76.58-97.66)	88.59%	90.99%	92.93%



Lobectomy for Lung Cancer Composite Quality Rating Details

The Society of Thoracic Surgeons		Lobectomy for Lung Cancer Composite Quality Rating Details				Home
		Participant: [REDACTED]				
		STS Reporting Period Ending Dec 2021				
Quality Domain	Eligible Procedures	Detail	*Count	% of Major Complications	% of Eligible Procedures	
Absence of Mortality	101	Operative Mortality	0		0%	
Absence of Major Complication	101	Major Complication	14		13.86%	
		Pneumonia only	0	0%	0%	
		ARDS only	0	0%	0%	
		Bronchopleural Fistula only	0	0%	0%	
		Pulmonary Embolus only	0	0%	0%	
		Initial Vent Support > 48hrs only	0	0%	0%	
		Reintubation/Respiratory Failure only	0	0%	0%	
		Tracheostomy only	0	0%	0%	
		Myocardial Infarction only	0	0%	0%	
		Multiple Complications (more than 1 of the above)	2	14.29 %	1.98%	
		Unexpected Return to the OR only	12	85.71 %	11.88%	
* Select value in Count column to view patient drilldown						
Patient ID	Record ID	Surgery Date	Domain	Report Name		

Lung Cancer Staging Procedures



Lung Cancer Staging Procedures, Pathologic Node Harvesting and Margin Status

Participant: XXXXXXXXXX

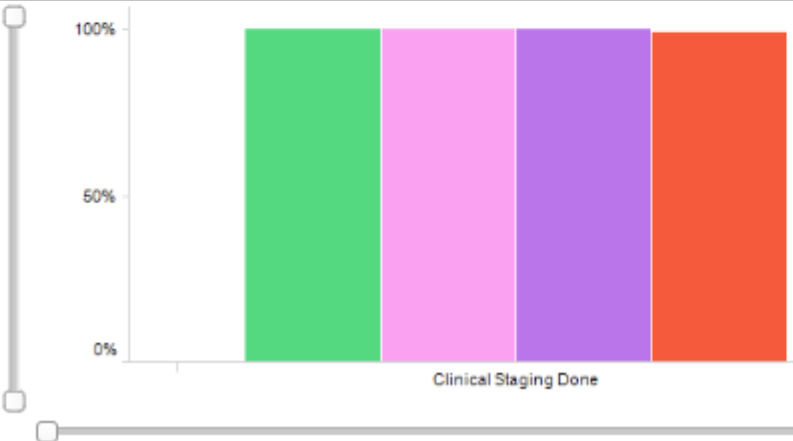
STS Reporting Period Ending Dec 2021

[Home](#)

[See Details](#)

Clinical Staging Done(%)

- STS 2019-2021
- My Site 2021
- My Site 2020
- My Site 2019



Year	Clinical Staging Done (%)
STS 2019-2021	100%
My Site 2021	100%
My Site 2020	100%
My Site 2019	100%

		My Site 2019	My Site 2020	My Site 2021	STS 2019 - 20...
Clinical Staging Done	Incidence	62	50	42	53109
Clinical Staging Done(%)	Clinical Staging Done	100%	100%	100%	99.10%
	Missing	0%	0%	0%	0.50%
Clinical Staging Methods	Brain CT Scan	1.80%	8%	0%	4.40%
	Brain MRI	25.80%	36%	7.10%	20.60%
	Bronchoscopy	33.90%	42%	7.10%	24%
	CT	100%	100%	35.70%	80.80%
	EBUS	24.20%	34%	4.80%	20.30%
	EUS	0%	2%	2.40%	0.70%
	Laparoscopy	0%	0%	0%	0%
	Mediastinoscopy/Chamberlain	11.30%	10%	4.80%	6.10%
	Needle Biopsy	17.70%	20%	9.50%	41.30%
	Other	3.20%	2%	0%	3.60%
Lung CA Resection Margins Positive	PET or PET/CT	79%	84%	31%	77%
	VATS	1.80%	8%	0%	2.70%
Total Number of Lymph Nodes Sampled/Harvested	Lung CA Resection Margins Positive	4.80%	4%	7.10%	2.20%
	Missing	0%	0%	0%	1.70%
	Mean	10.35	10.38	9.33	12.32
Total Number of Lymph Nodes Sampled/Harvested(%)	Median	9	9	7	11
	25th percentile	5	4	4	6
	75th percentile	14	14	11	17
	Missing	0%	0%	4.80%	3%

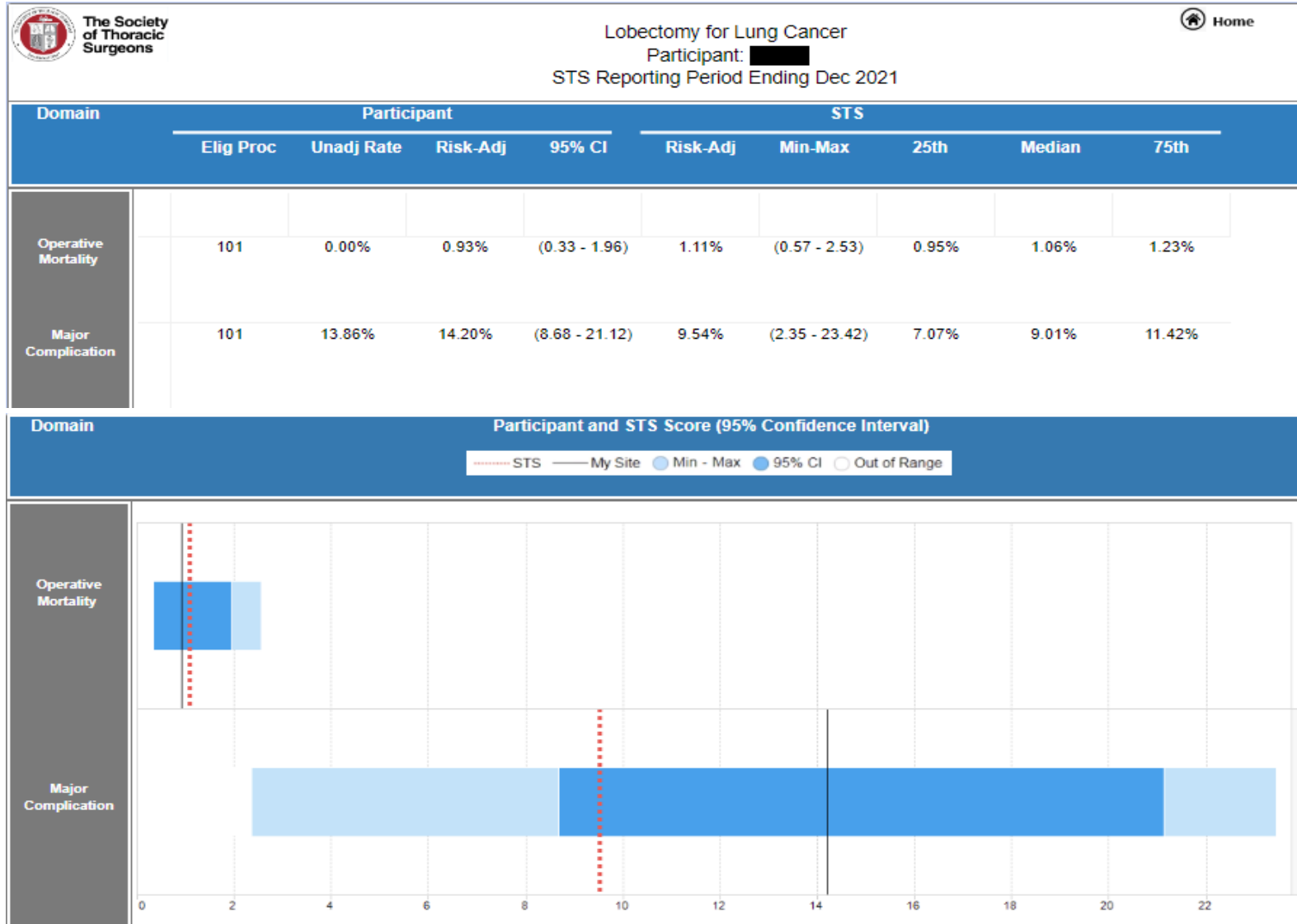
Risk Adjusted Outcomes- Why?

Allows us to compare outcomes across database participants that adjusts for differing case mix

Why is case mix important?

- Diverse volume between participants
 - Outcomes for larger volume participants are more precise than those with lower volume
- Severity of patient illness
- Prolonged length of stay
 - Patient acuity
 - Remote hospital locations

Lobectomy Risk Adjusted Outcomes



Lung Cancer Resection Composite Rating

Inclusion

COD:

- Lung Cancer; Upper, Middle, Lower, Unspecified, Main bronchus

Primary Procedure:

- Removal of lung, total pneumonectomy 32440
- Removal of lung, single lobe (lobectomy) 32480
- Removal of lung, two lobes (bilobectomy) 32482
- Removal of lung, single segment (segmentectomy) 32484
- Removal of lung, sleeve lobectomy 32486
- Thoracotomy with therapeutic wedge resection (eg mass nodule) initial 32505
- Thoracoscopy, surgical; with lobectomy 32663
- Thoracoscopy with therapeutic wedge resection (eg mass or nodule, initial, unilateral 32666
- Thoracoscopy with removal of lung, pneumonectomy 32671
- Thoracoscopy with removal of two lobes (bilobectomy) 32670
- Thoracoscopy with removal of a single lung segment (segmentectomy) 32669

Elective Status

Exclusion

- Records missing any required fields
- Occult or Stage 0 pathological stage
- ASA class V, VI
- ECOG/Zubrod 4,5

Participants with >2% missing or unknown for discharge status/status at 30 days were also excluded

*Participants must have at least 30 eligible resections for primary lung cancer procedures meeting inclusion criteria for the 3-year harvest period to receive a star rating.

Esophagectomy Composite Rating

Inclusion

COD:

- Esophageal Cancer; Upper third, Middle third, Lower third, EG Junction (cardia)

Primary Procedure:

- Transhiatal- Total esophagectomy, without thoracotomy; with cervical esophagogastrostomy (43107)
- 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
- Minimally Invasive esophagectomy, Abdominal and neck approach
- Minimally Invasive three-hole esophagectomy

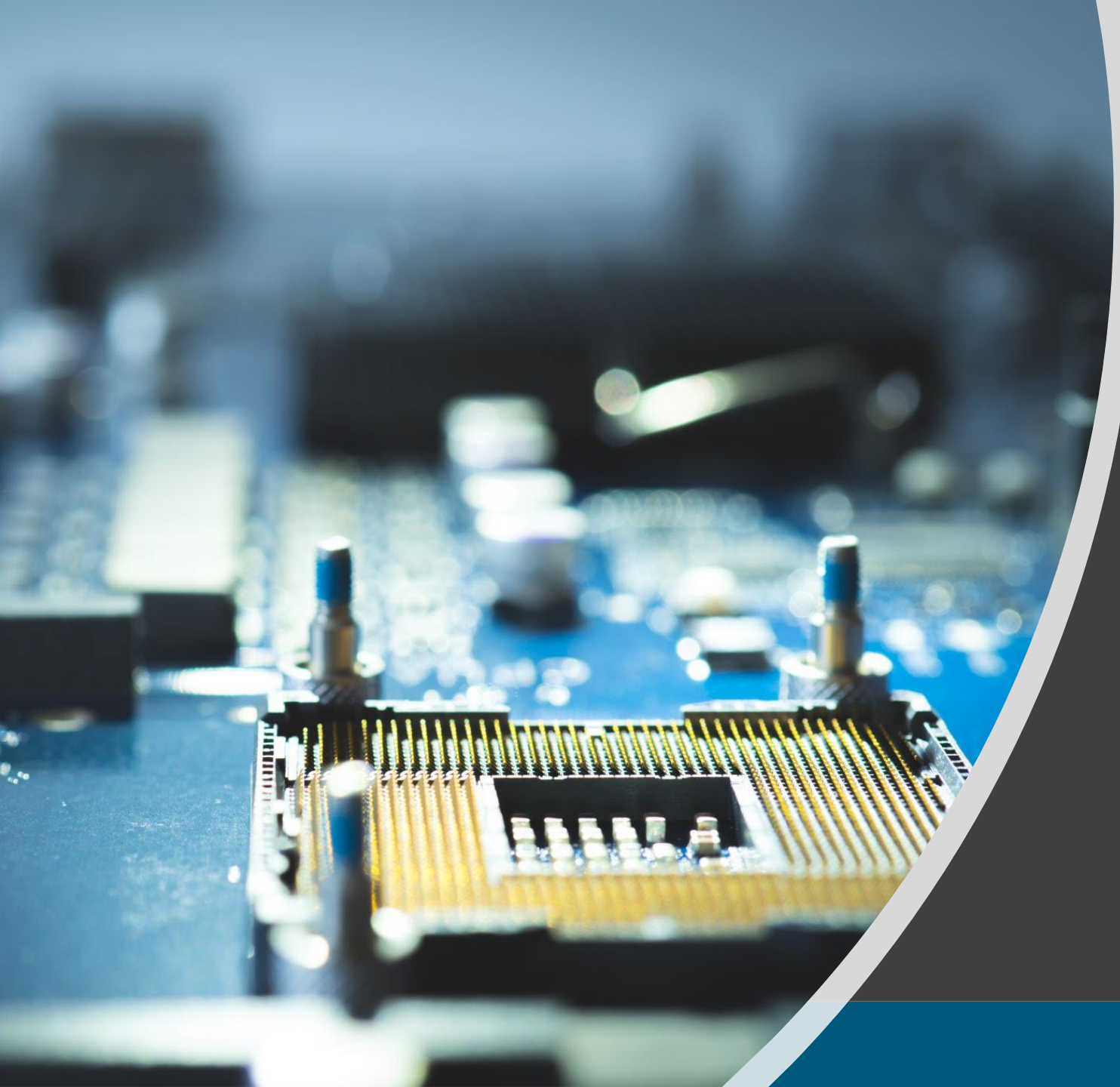
Elective Status

Exclusion

- Missing age, gender, discharge mortality status, clinical staging, pathological esophageal histopathologic type, or if all the three TNM components of pathological stage are missing
- ASA class VI

Participants with >2% missing or unknown for discharge status/status at 30 days were also excluded

*Participants must have at least 15 eligible esophagectomy for primary esophageal cancer procedures meeting inclusion criteria for the 3-year harvest period to receive a star rating.



IQVIA Review Joe Brower

IQVIA Release July 2022

IQVIA Updates - July 2022 Release

Released the weekend of July 9 - GTSD Risk Adjusted Dashboard Report – Spring 2022 Harvest Report

An updated version of the **Analyses Report Overview** is posted to the Library.

The **Spring 2022 GTSD Harvest Composite Quality Ratings Summary** is posted to the Library.

PLEASE NOTE: The Export/Print feature has temporarily been disabled within the application due to the ongoing development for the Other Reports, Benchmark Reports and Legacy Reports.

In the meantime, IQVIA has distributed the PDF version of the Spring 2022 reports via email to the assigned Primary and Backup users. If you have not received a copy of the PDF report, please contact the support team to request a copy of the report.

PLEASE NOTE: If your site opted out or did not receive results, the report would not be sent.

IQVIA Known Issues July 2022

IQVIA Known Issues - July 2022

The items below are in development and in review for production release.

GTSD Risk Adjusted Dashboard Report – Spring 2022 Harvest Results

STS-8562 – (Lung Cancer Staging Procedures) The report logic will be updated to include the 5.21.1 data version changes for identified variables which were discontinued and replaced.

STS-8563 – (Esophageal Cancer Staging Procedures) The report logic will be updated to include the 5.21.1 data version changes for identified variables which were discontinued and replaced.

IQVIA Update

Please note: Submitted tickets are currently under review and the IQVIA support team will follow up on resolution and/or target release confirmation.

The IQVIA Team is currently reviewing items to be targeted for an upcoming release. Those items will be posted to the Notifications section.

Contact Information

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

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

Database Operational
Questions

- STSDB@sts.org

Upcoming GTSD Webinars

Monthly Webinar

- August 10 @ 1:30CT

User Group Call

- August 24 @ 2:30CT



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!



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

THANK YOU FOR JOINING!