

An Update on Standard 5.8 Lung NODES (Nodal Operative, Dissection, Evaluation, and Staging):

An ACS Cancer Programs National Quality Improvement Collaborative

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University of Michigan

March 14, 2025

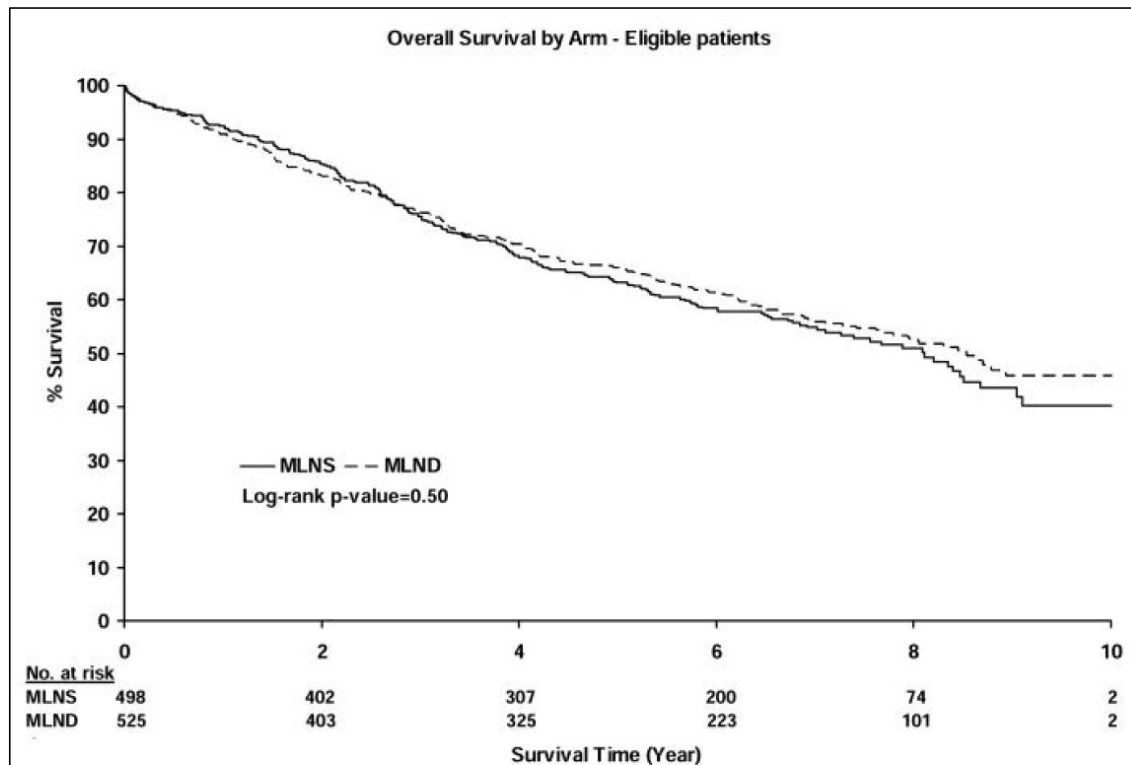
Disclosures

- None

Lymph nodes are important

- Agreed upon element of surgical care
 - NCCN
 - STS
 - ASCO
- Needed to determine final pathological stage
- Key determinant of adjuvant therapy
 - Up to 30% difference in 5-year survival

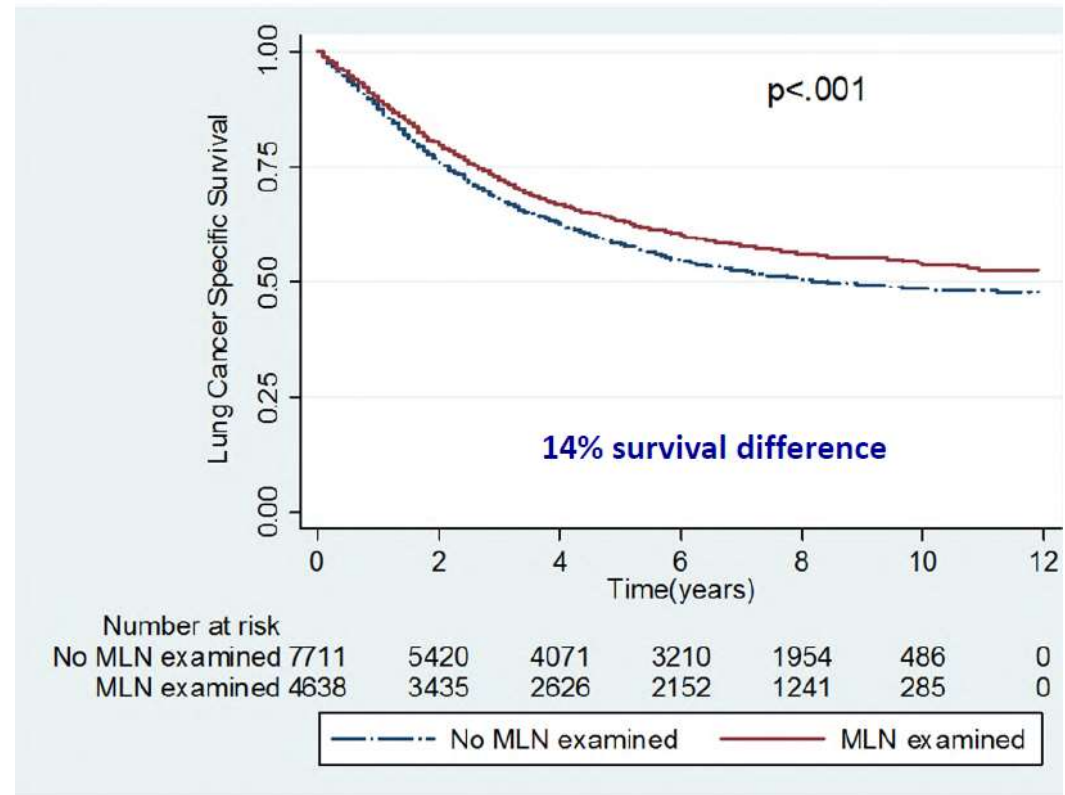
Does not require lymphadenectomy



- ACOSOG Z0030 trial randomized patients to either
 - Systematic lymph node sampling (MLNS)
 - Complete lymph node dissection (MLND)

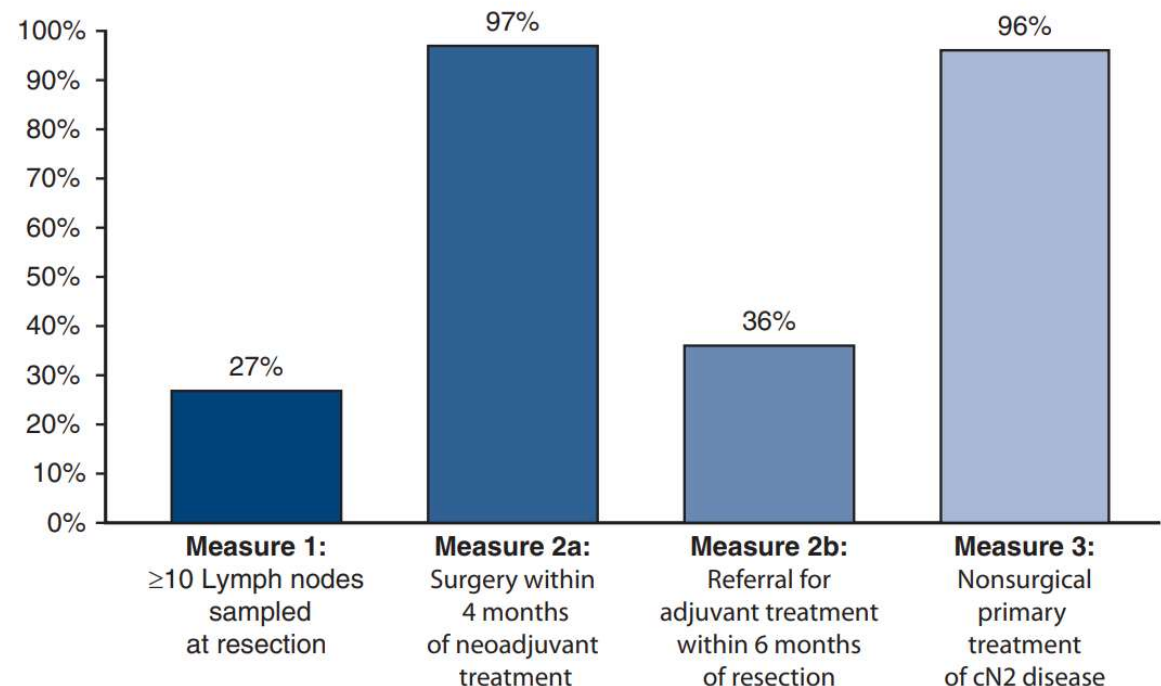
Nodal staging impacts survival

- Mediastinal lymph node assessment
 - Any node assessment matters
- Accurate staging guides more effective treatment



Node staging remains a problem

- Prior CoC standard required 10 nodes
 - Least frequent compliance
 - >3/4 of hospitals failed to meet 80% threshold
 - Non-compliance associated with significantly **increased mortality (HR 1.18)**



Standard 5.8

1) The hilum and mediastinum should be **thoroughly staged at the time of lung resection**, even in patients undergoing non-anatomic parenchyma sparing resection (i.e. a wedge resection)

2) The surgical pathology report must contain lymph nodes from at least **one hilar station** and **at least three distinct mediastinal stations**

3) The nodal stations examined by the pathologist must be documented in curative pulmonary resection pathology reports **in synoptic format**

Why a national QI project?

Operation	For any primary pulmonary resection performed with curative intent (including non-anatomic parenchymal-sparing resections) Resect nodes from: Mediastinum (Stations 2-9) ≥3 distinct stations Hilum (Stations 10-14) ≥1 station
Pathology Documentation	Synoptic report documents lymph nodes from: ≥ 3 mediastinal stations ≥ 1 hilar station with names and/or numbers of stations

- Baseline adherence was problematic
 - Initial adherence <55%
- Programs expressed desire
 - Understand how to use their data
 - Pathways to improve

Why are we focusing on noncompliance?

Reasons for noncompliance

- Surgical technique
- Operating room standardization
- Pathology documentation
- Communication

Noncompliance with Standard 5.8 leads to worse patient clinical outcomes

Noncompliance can be measured

Noncompliance can become data for programs to help improve outcomes through shared quality initiatives

Goal for Lung NODES National QI Collaborative:

By December 2025, all programs participating in the Standard 5.8 Lung NODES national QI project will achieve >80% overall compliance and/or improve by an absolute value of 20%

Mechanisms to optimize compliance



Ensure institution is utilizing **standardized CAP reports** for all lung cancer procedures



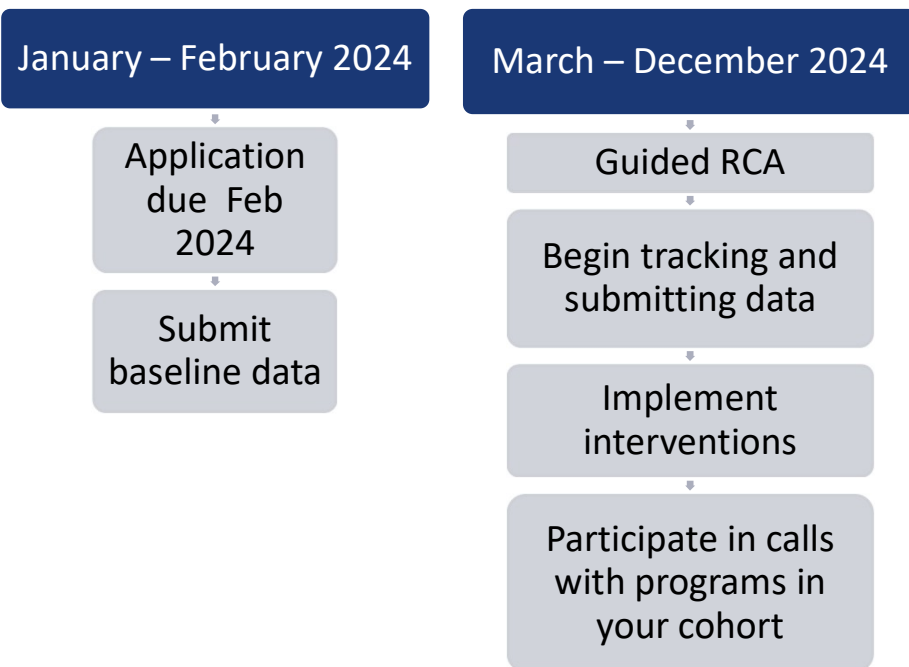
Document performance of lymph node sampling during pulmonary resection & label stations **clearly** in operative note



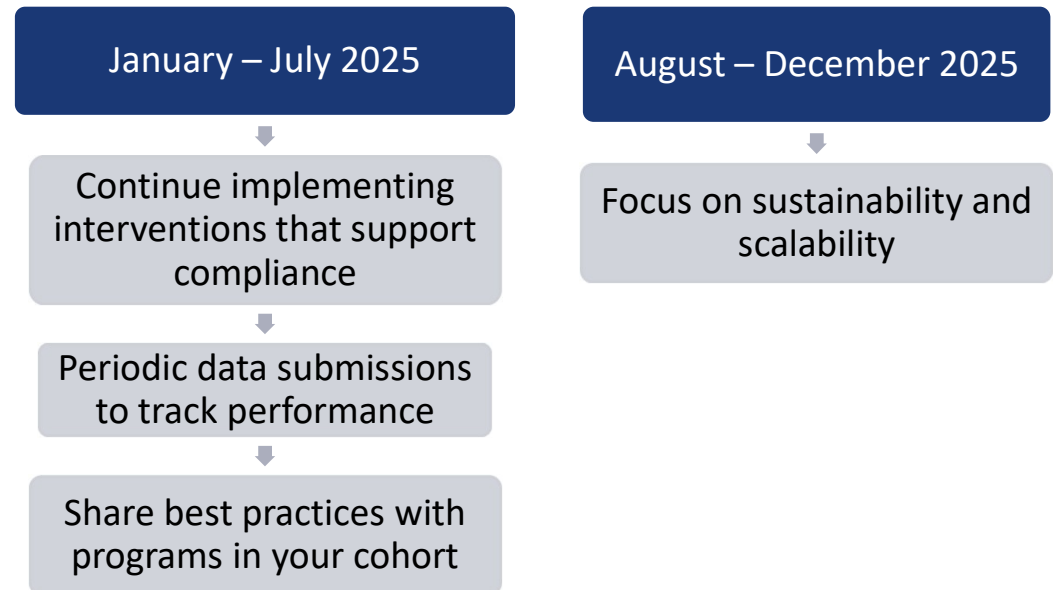
Encourage communication amongst surgeons, pathologists, & registrars

2-Year Lung NODES Project Plan

Year 1



Year 2



Application of Standard 5.8 Project Credit

Site Visit Year	Application of Standard 5.8 QI Project Credit
2024 (Reviews years 2021, 2022, 2023)	Sites receiving a deficiency in Standard 5.8 may use successful completion of the 5.8 QI Project to resolve the deficiency.
2025 (Reviews years 2024, 2023, 2022)	If the site achieves the required compliance percentage during the medical record review, the site will receive a Compliant rating. Sites that do not achieve the required compliance percentage during the medical record review but successfully completed the QI project in 2024 will receive a Deficient but Resolved rating. (Deficient but Resolved acknowledges that the standard was deficient but does not require the program to submit corrective action).
2026 (Reviews years 2025, 2024, 2023)	Sites can choose to only provide 2025 cases in the patient list for selection by the site reviewer.
2027 (reviews years 2026, 2025, 2024)	Sites can choose to only provide 2025 and 2026 cases in the patient list for selection by the site reviewer.

Resources Available to Programs



Webinars



Technical assistance from the project team



A change package with helpful implementation tools



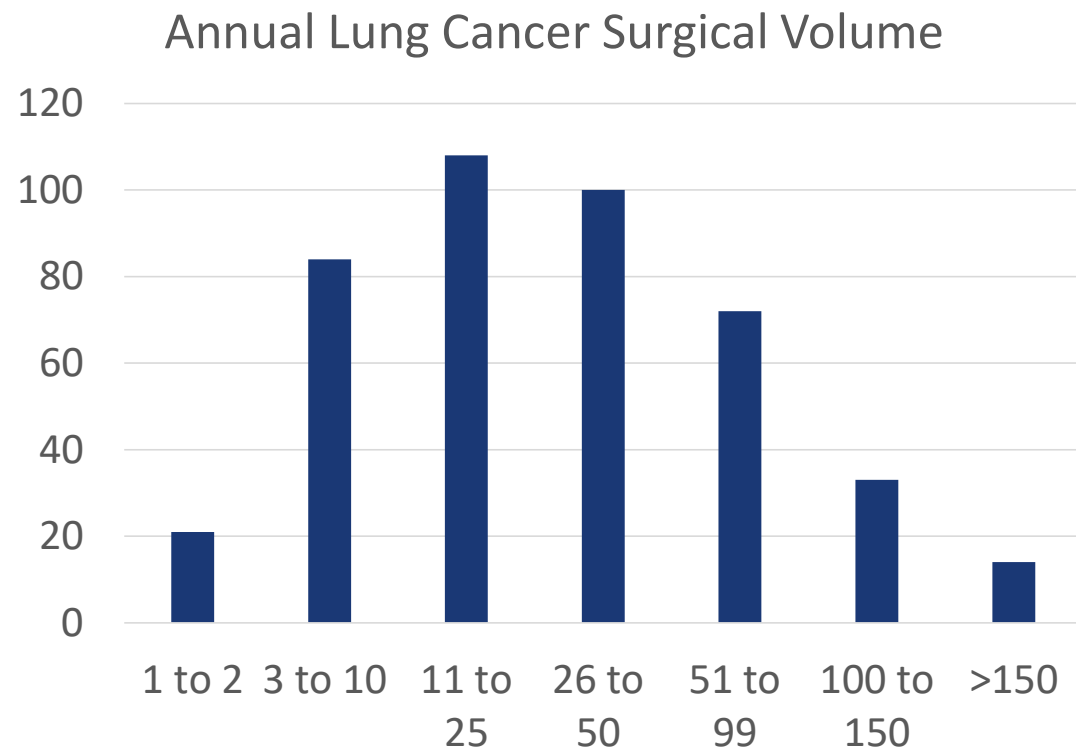
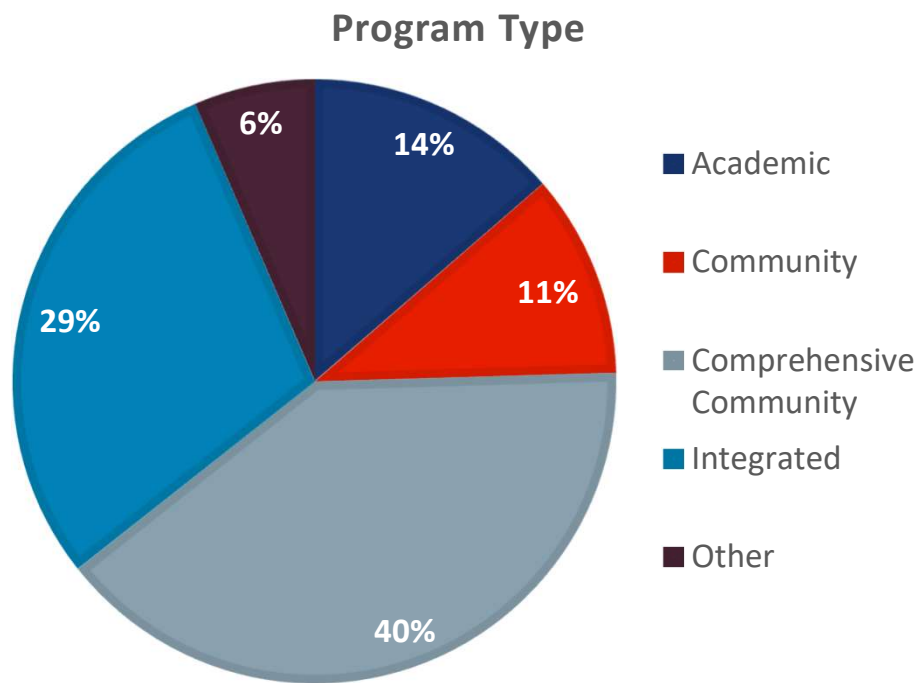
Participate in calls with other programs in your cohort

Program Accomplishments in Year 1

Kelley Chan, MD, MS

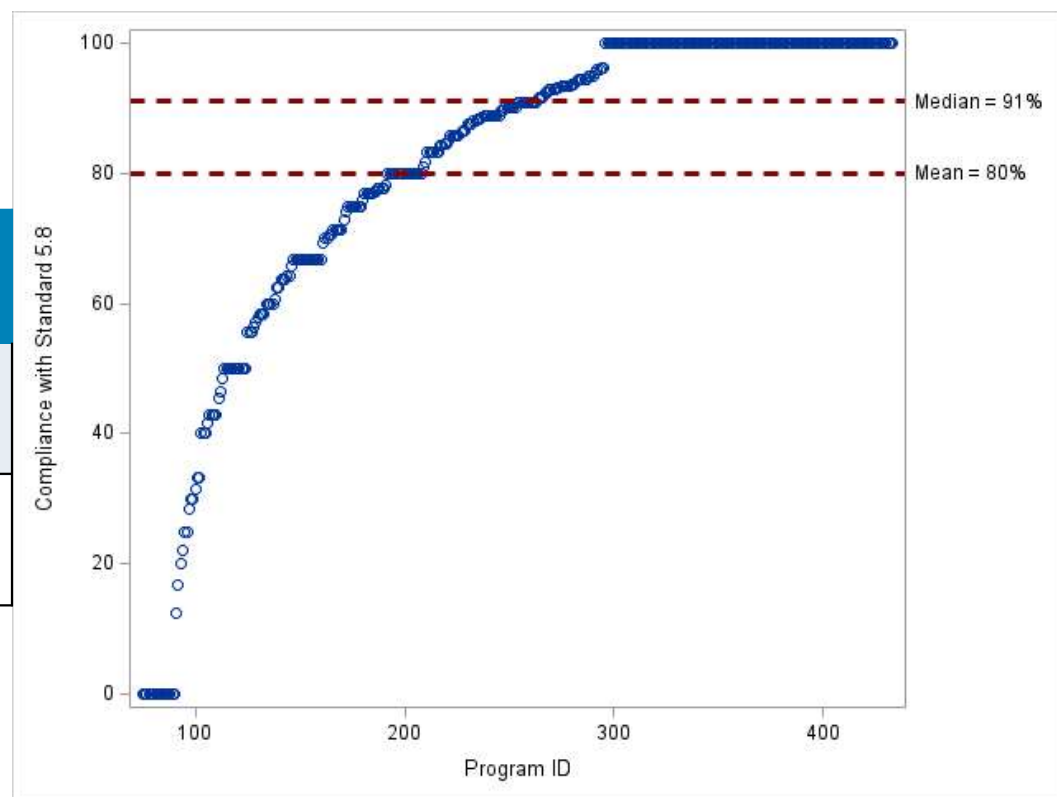
Participating Programs Characteristics

- 432 programs



Improvements in Program Level Compliance

	Base-line	March-May	June-Aug	Final	Difference
Median	65%	81%	87%	91%	26%
Mean	59%	72%	81%	80%	21%



Program Level Compliance for Final Data Collection

- 359 programs submitted data
- Median compliance 90.9% from 87% (last data)
 - (IQR 70.6 to 100%)
 - **242 (67.4%) programs with compliance $\geq 80\%$**
- 138 (40.6%) programs had an increase in compliance from last period
 - Median +17.0% (IQR 7.7 to 30.0%)
- 202 (59%) programs had no change or a decrease in compliance
 - 135 programs with compliance $\geq 80\%$ [Median 0% (IQR -5.6 to 0%)]
 - 67 programs with compliance $< 80\%$ [Median -16.4% (IQR -28.4 to -5.4%)]

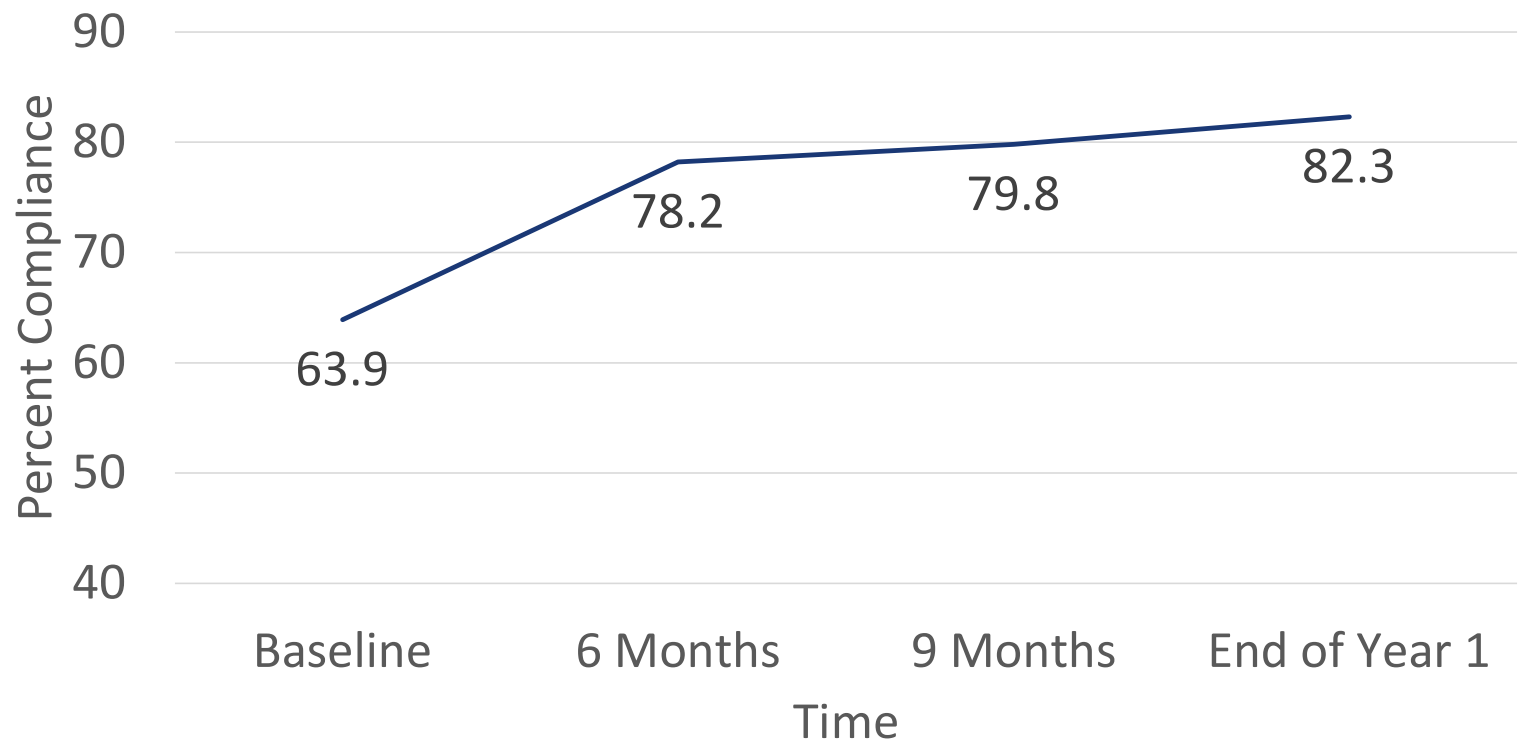
Improvements by Annual Surgical Volume

Annual Case Volume	# Programs	Mean Baseline Compliance	# Programs	Mean Final Compliance
1 to 2	19	40.5	7	92.9
3 to 10	78	45.2	52	75.8
11 to 25	104	62.2	97	79.2
26 to 50	99	65.5	95	82.7
51 to 99	68	66.0	66	78.8
100 to 150	31	75.8	29	88.1
>150	14	72.4	13	76.2

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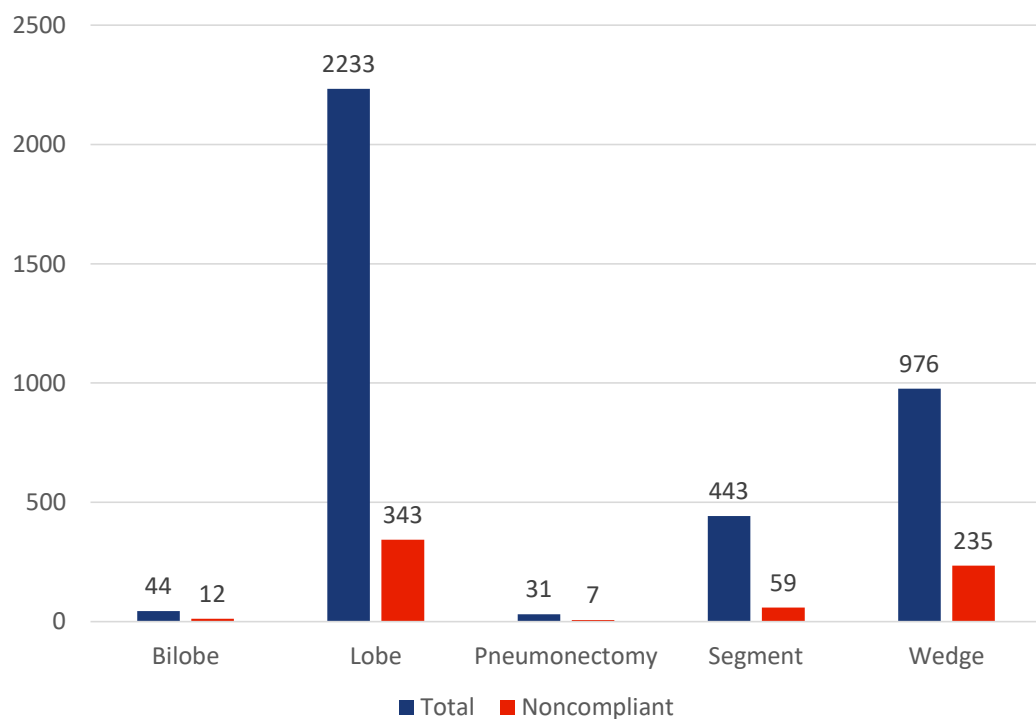
Median Patient Level Compliance Over Time

- Total cases submitted over Year 1: 20,123



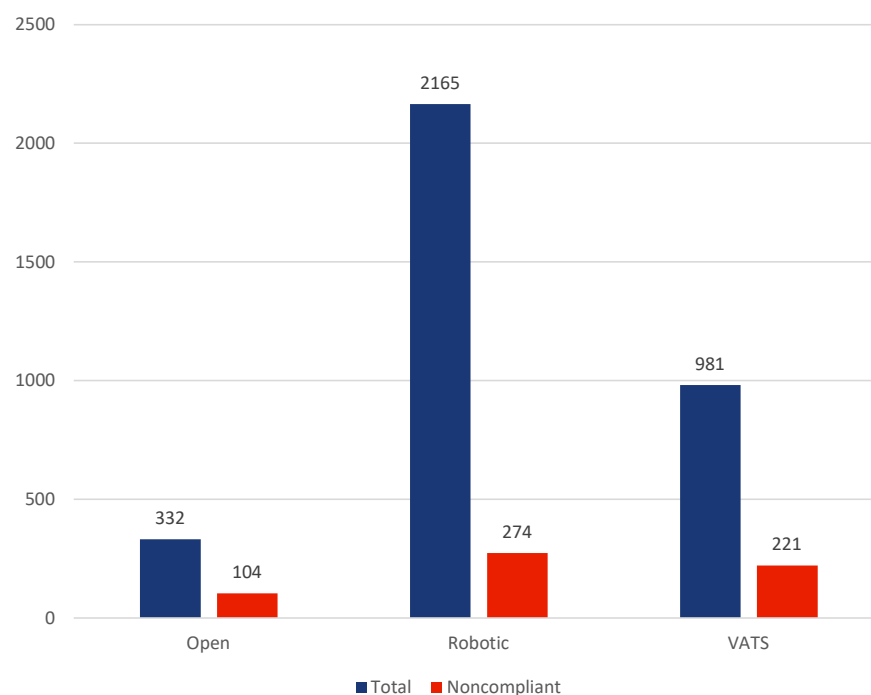
Surgical Factors Associated With Noncompliance (Final Data Collection Period)

Surgery



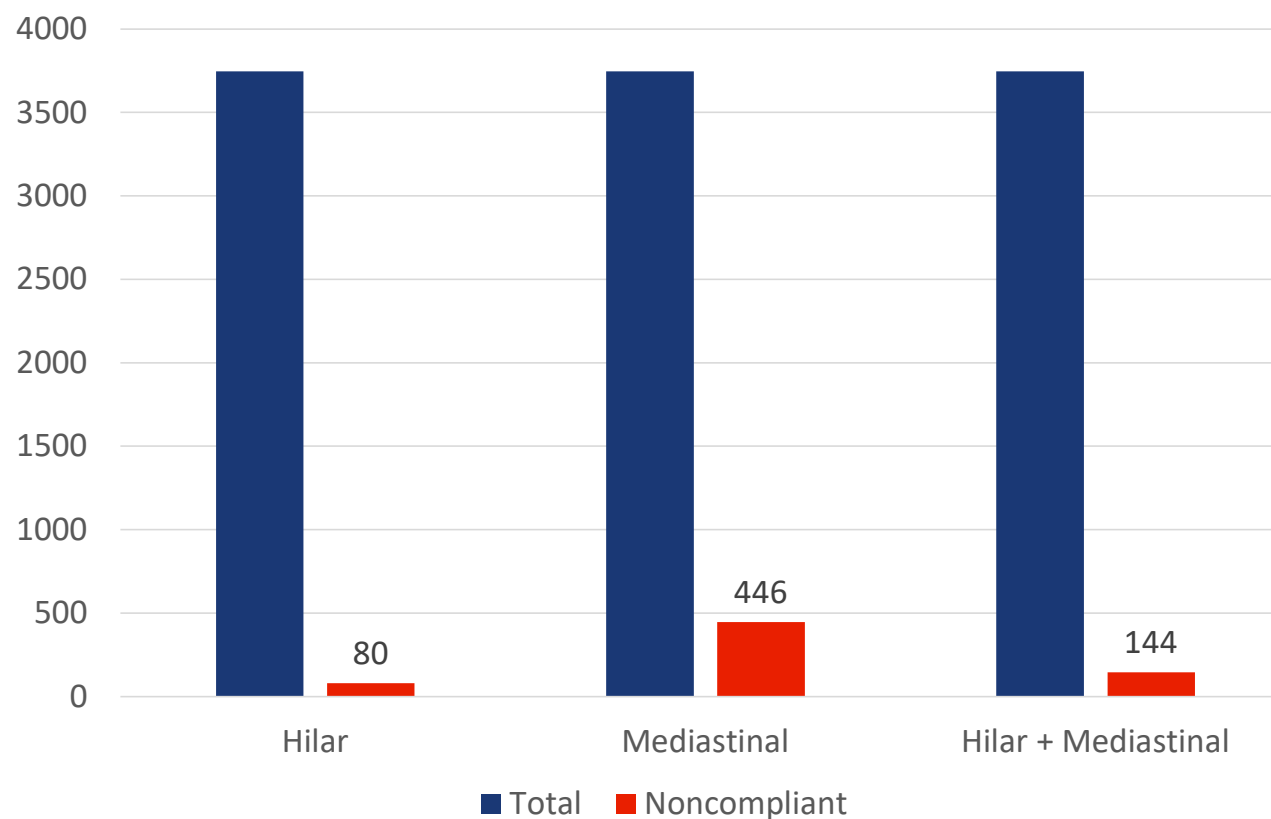
Missing n=109

Approach

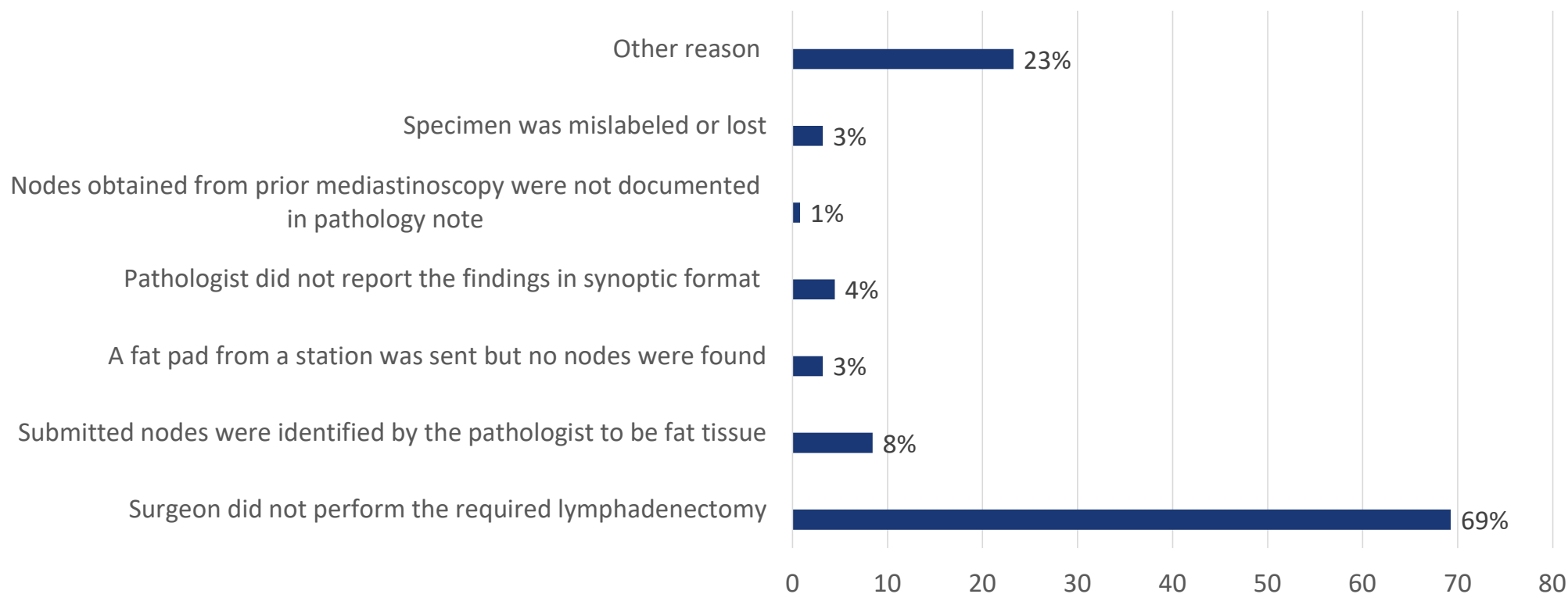


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Lymph Node Stations Associated With Noncompliance (Final Data Collection Period)



Reasons for Noncompliance



31 (4.7%) cases with >1 reason

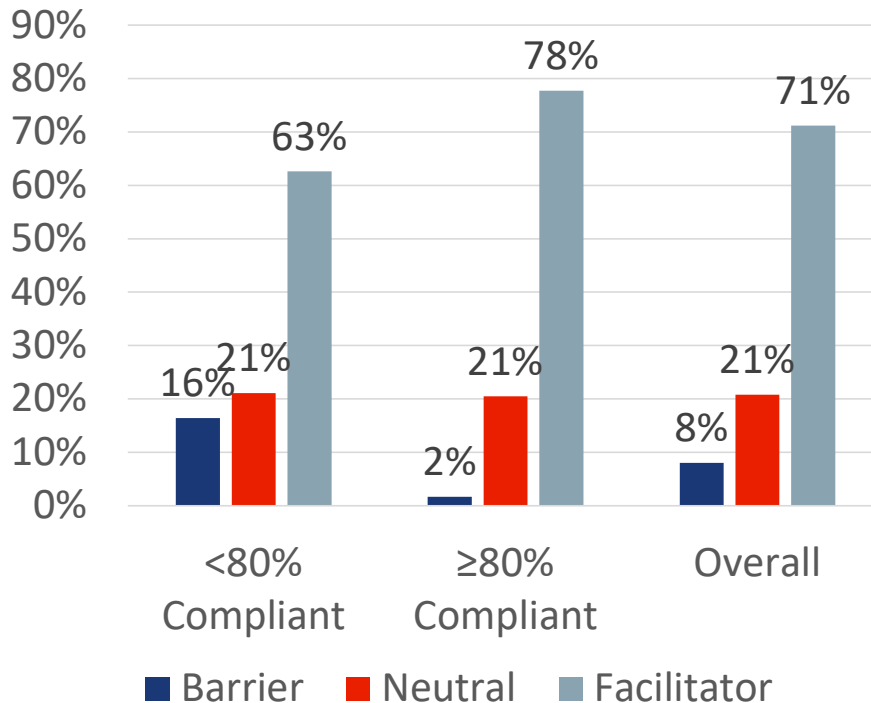
Year End Reflection

Ryan Jacobs, MD, MS

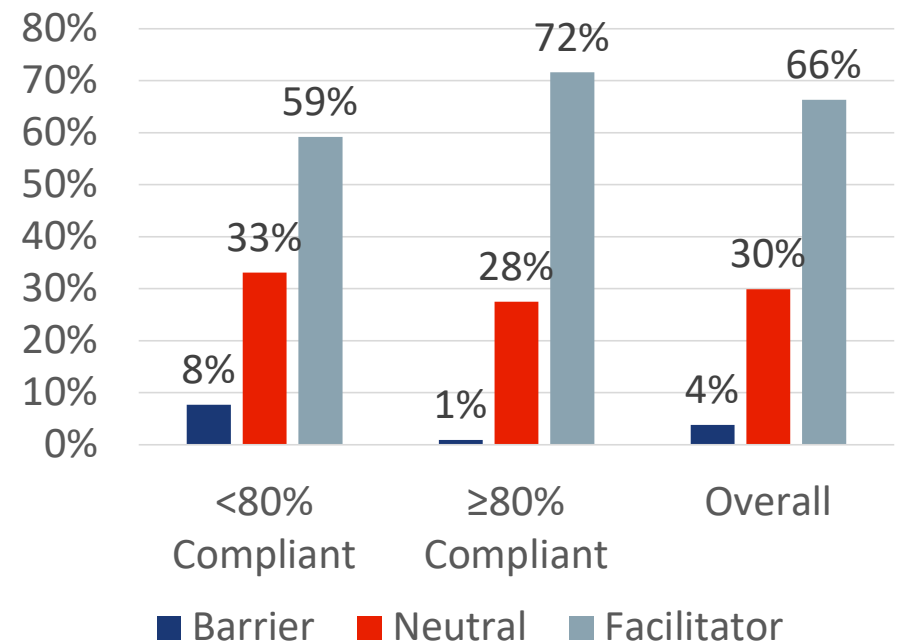


Barriers and Facilitators

Surgeon Buy-In ($p < 0.001$)

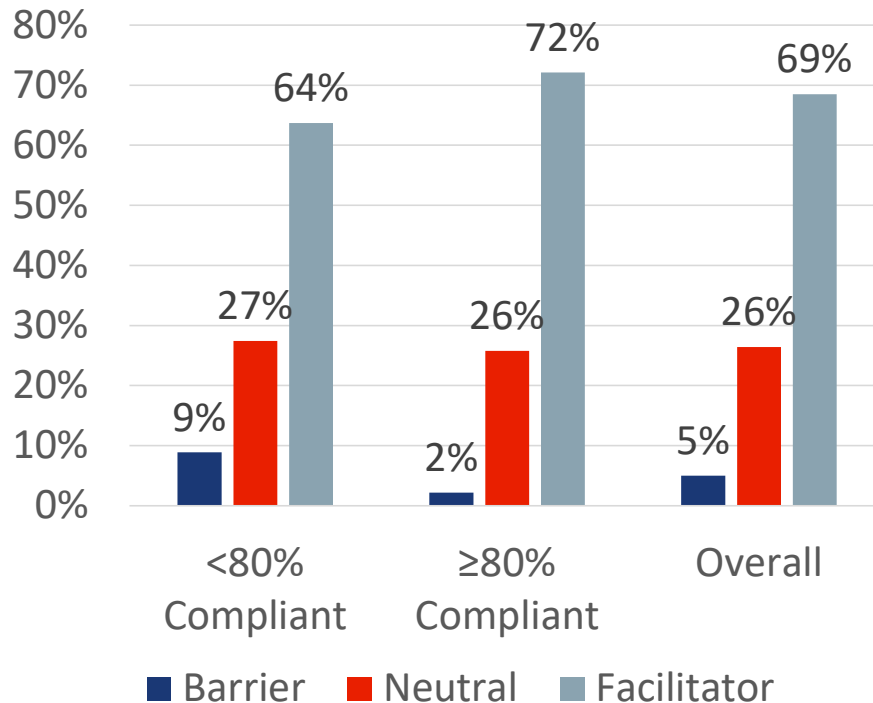


Surgeon + OR Team Communication ($p < 0.001$)

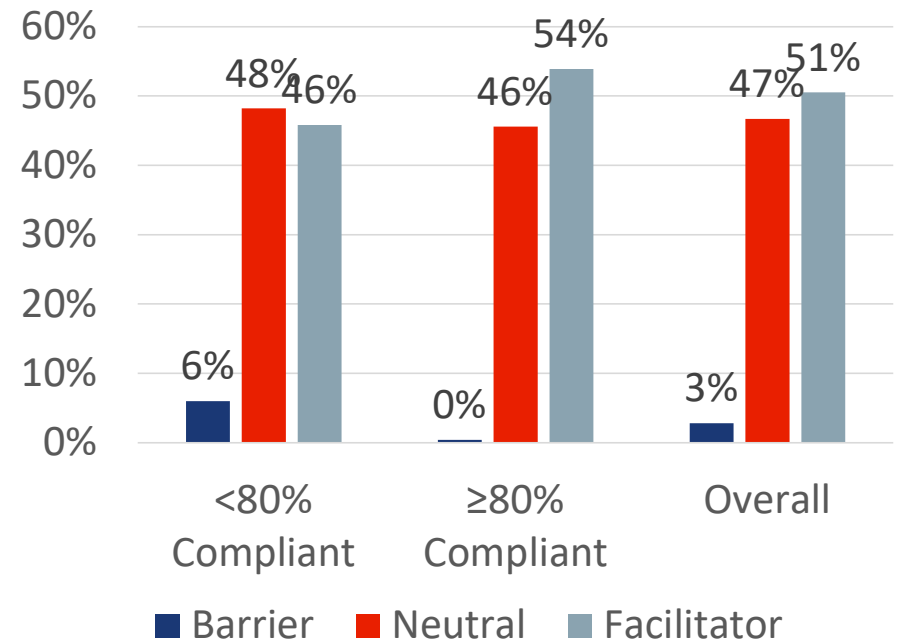


Barriers and Facilitators

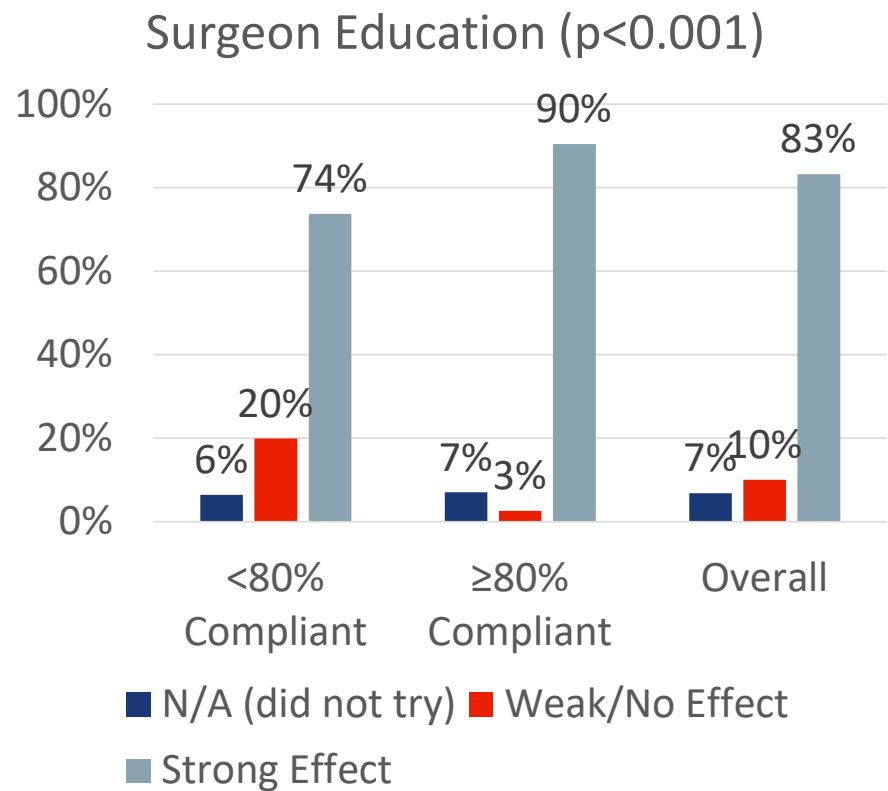
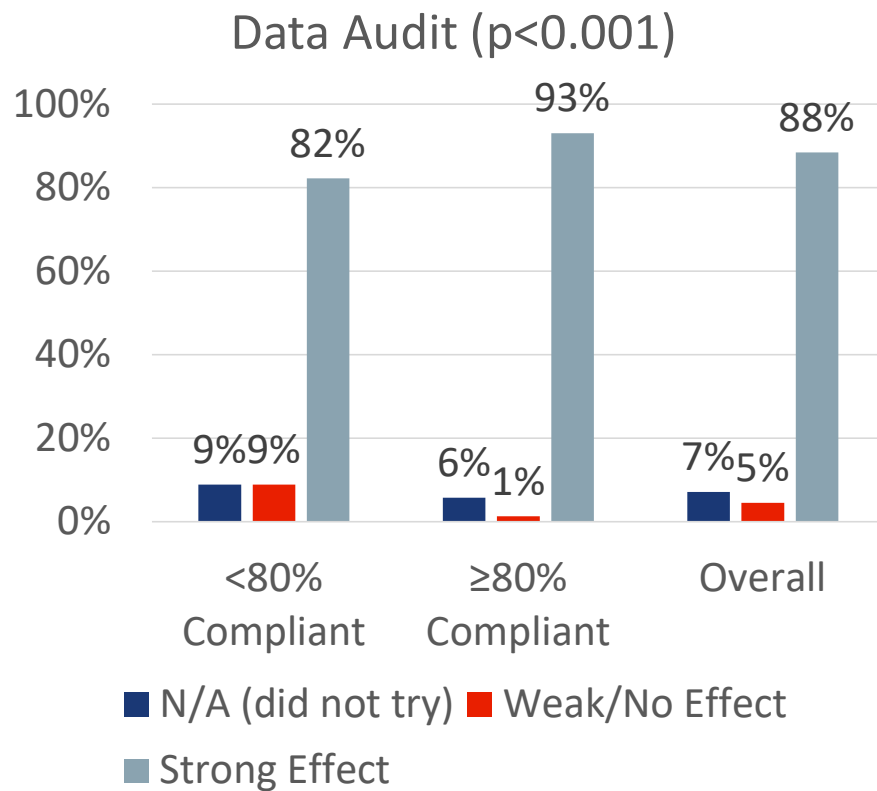
Specimen Labelling (p=0.007)



Anatomic Resection Cases (p=0.002)

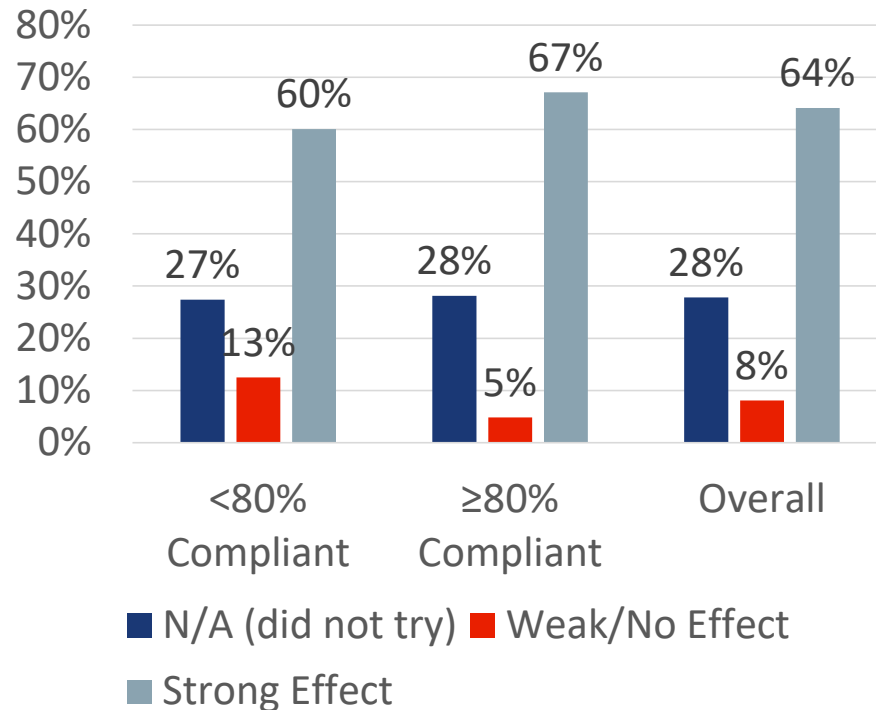


Interventions and Impact

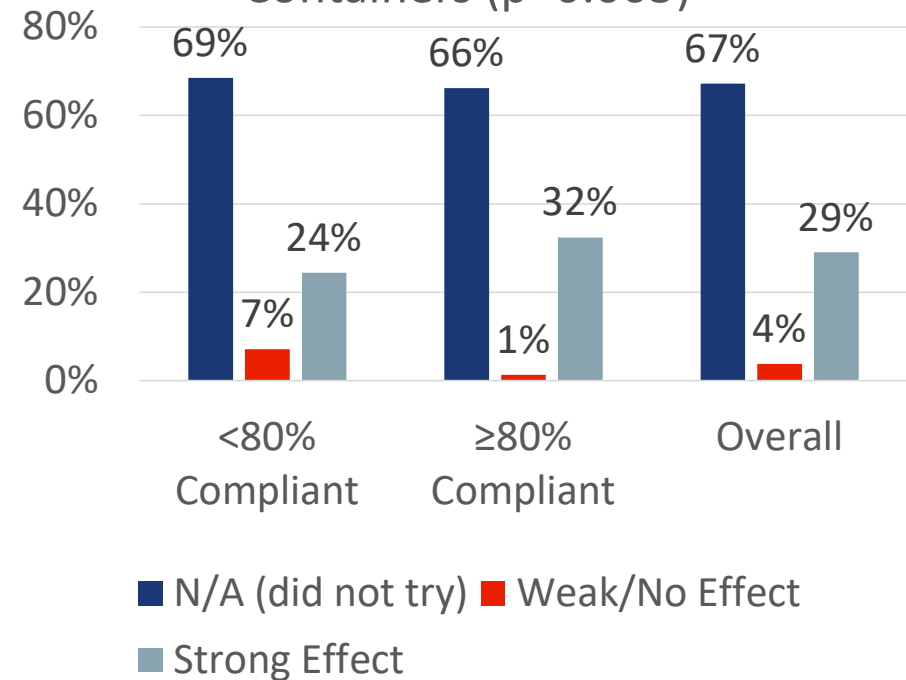


Interventions and Impact

OR Nurse Education (p=0.020)



Pre-Labelled Specimen Containers (p=0.005)



Better Together



What resources are available for Standard 5.8?

Governance **Toolkit** Operative Standards for Cancer Surgery Protocols for Cancer Surgery Documentation

Standard 5.8: Pulmonary Resection

[Editorial on CoC Standard 5.8 in Society of Thoracic Surgeons](#)

[Standard 5.8 Flowchart to Assess Compliance](#) (PDF)

[Society of Thoracic Surgeons Webinar on CoC Standard 5.8](#) (Webinar recording from April 28, 2022)

[CoC Standard 5.8: Requirements & Best Practices](#) (Video - 9 minutes)

[Visual abstract of standard requirements and compliance information](#) (PDF)

[Guidelines for registrars to identify eligible cases for Standard 5.8](#) (PDF)

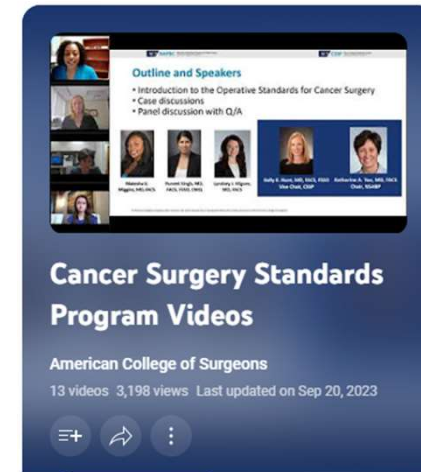
[Best Practices to Meet the Standard for Nodal Assessment During a Curative Operation](#) (SurgOnc Today® podcast - 40 minutes)

[CSSP Webinar on CoC Standard 5.8](#) (Webinar recording from December 15, 2020 - 53 minutes)

- [Slides](#) (PDF)
- [Summary and FAQs](#) (PDF)

[Best Practices for Compliance with CoC Standards 5.7 & 5.8](#) (Webinar recording from June 3, 2021 - 60 minutes)

- [Slides](#) (PDF)
- [Summary and FAQs](#) (PDF)



Right-Side Cancer Lung Resection (Graphic Imagery) | Surgical Videos | ACS
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Left-Side Cancer Lung Resection (Graphic Imagery) | Surgical Videos | ACS
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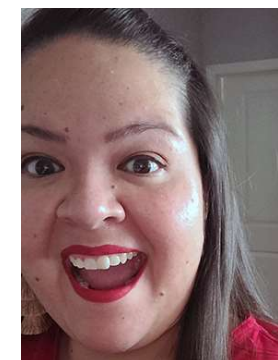
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