

Implementation of Lung Cancer Operative Standard 5.8 at a Comprehensive Cancer Center

Kelsey B. Montgomery MD¹, Britany Hollenquest BS², Wendelyn M. Oslock MD MBA¹, Kristy K. Broman MD MPH^{1,2}

1. Department of Surgery, University of Alabama at Birmingham; 2. Institute for Cancer Outcomes and Survivorship, University of Alabama at Birmingham

Background

Operative standard (OS) 5.8 for lung cancer resection was implemented in 2021 by the American College of Surgeons as part of the Cancer Surgery Standards Program to **optimize mediastinal nodal staging**. OS 5.8 requires the reporting of **at least 1 hilar lymph node (LN) and 3 mediastinal LN stations** to ensure adequate nodal sampling. This study evaluated implementation of OS 5.8 and clinical factors associated with OS 5.8 compliance at a comprehensive cancer center.

Methods

Adult patients who underwent curative resection for lung cancer at an NCI-designated comprehensive cancer center from **January 2021 to August 2023** were included. OS 5.8 compliance and patient, disease, and operative factors were abstracted retrospectively. Statistical analyses were performed including bivariate analyses and multivariable logistic regression to evaluate factors associated with OS 5.8 compliance.

Variable	Cohort (n=274) n(%)
Operative Standard 5.8 Compliance	
Both Requirements Met	203 (74.1%)
≥ 1 Hilar Lymph Node	214 (78.1%)
≥ 3 Mediastinal Lymph Node Stations	232 (84.7%)
Year of Surgery	
2021	113 (41.2%)
2022	111 (40.5%)
2023	50 (18.2%)
Extent of Lung Resection	
Partial lobectomy	119 (43.4%)
Lobectomy	146 (53.5%)
Pneumonectomy	4 (1.5%)
Other	5 (1.8%)
Surgical Modality	
Robotic	166 (60.8%)
Video-Assisted Thoracoscopic Surgery	53 (19.4%)
Open	54 (19.8%)
Preoperative Lymph Node Sampling via Endobronchial Ultrasound (EBUS)	93 (33.9%)

MAIN TAKEAWAYS

Compliance for OS 5.8 improved over time and varied by surgical modality, cancer sidedness, and extent of resection.

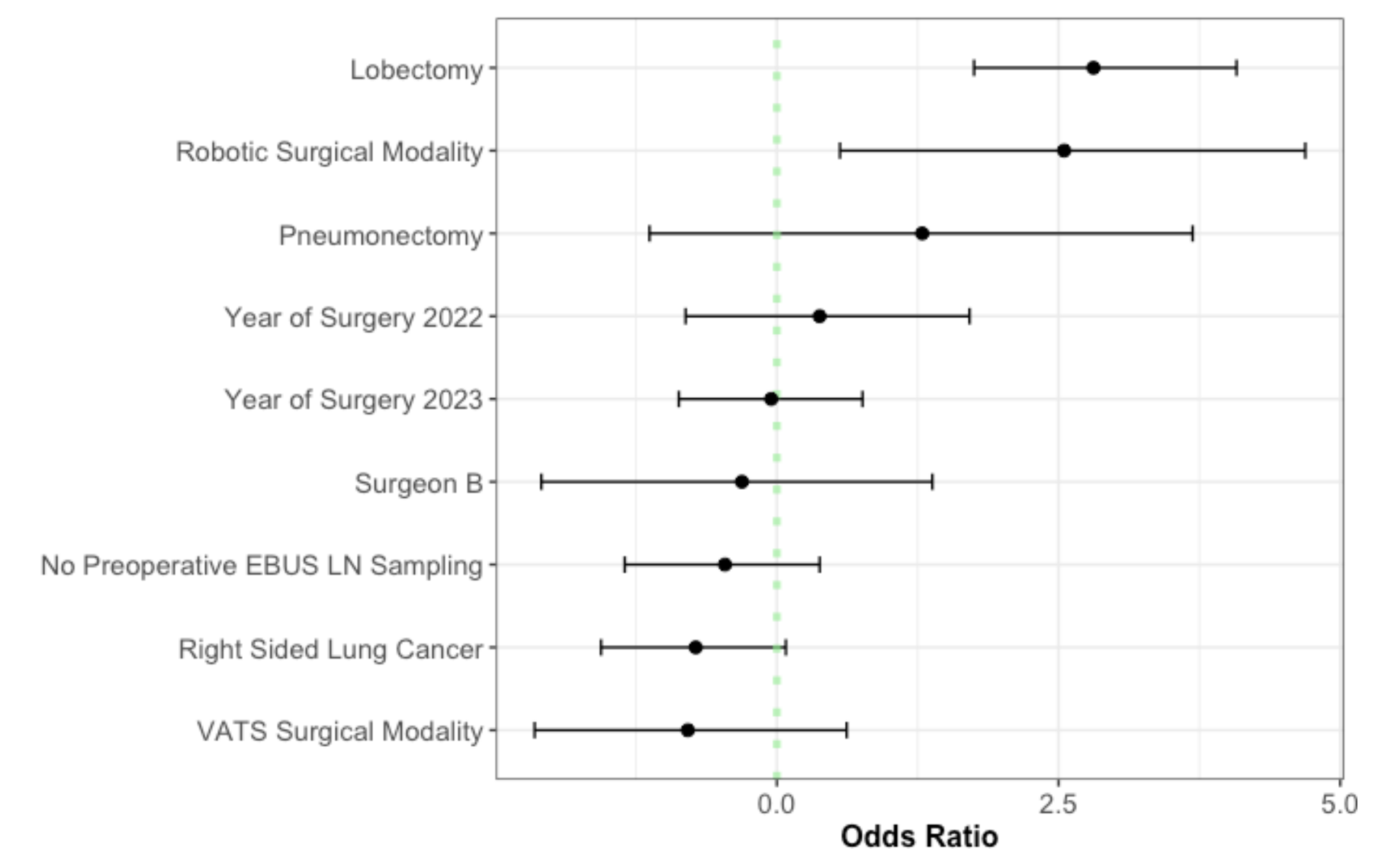
Ongoing efforts to improve compliance will require understanding potential barriers related to clinical and operative factors.

Contact Information:

Email: kmontgomery@uabmc.edu
Twitter: @KMontgomeryMD

Variable	OS 5.8 Compliant (n=203), n(%)	OS 5.8 Non-Compliant (n=71), n(%)	P-value
Year of Surgery			0.04
2021	79 / 113 (69.9%)	34 / 113 (30.1%)	
2022	80 / 111 (72.1%)	31 / 111 (27.9%)	
2023	44 / 50 (88.0%)	6 / 50 (12.0%)	
Cancer Sidedness			0.06
Left	83 (41.1%)	20 (28.2%)	
Right	119 (58.9%)	51 (71.8%)	
Extent of Lung Resection			<0.001
Partial lobectomy	135 (66.5%)	11 (15.5%)	
Lobectomy	61 (30.0%)	58 (81.7%)	
Pneumonectomy	5 (2.5%)	0 (0.0%)	
Other	2 (1.0%)	2 (2.8%)	
Surgical Modality			<0.001
Robotic	146 (72.3%)	20 (28.2%)	
Video-Assisted Thoracoscopic Surgery	12 (5.9%)	41 (57.7%)	
Open	33 (21.8%)	10 (14.1%)	
Preoperative Lymph Node Sampling via EBUS	76 (37.4%)	17 (23.9%)	0.04

Likelihood of Operative Standard 5.8 Compliance



Reference: Year of Surgery 2021, Surgeon A, Partial Lobectomy, Open Surgical Modality, Left Sided Cancer, Yes Preoperative EBUS LN Sampling