CHEST Online Supplement

Knowledge and Practice Patterns Among Pulmonologists for Molecular Biomarker Testing in Advanced Non-small Cell Lung Cancer

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e-Table 1. Comparison of responders and non-responders

		Respondents	Non-respondents
Gender	Unspecified	1.80%	3.31%
	Male	78.26%	81.36%
	Female	19.94%	15.33%
Age	Unspecified	0.45%	0.75%
	25-34 years old	2.25%	1.34%
	35-44 years old	29.84%	13.90%
	45-54 years old	25.34%	16.82%
	55-64 years old	24.29%	24.37%
	65-74 years old	15.29%	31.33%
	75+ years old	2.55%	11.46%
Clinical Demographics	Non-Physician Clinician	1.80%	3.02%
	Fellow-in-Training	2.70%	3.02%
	Intern	0.15%	0.01%
	Physician	91.75%	85.38%
	Resident	0.15%	0.36%
	Retired	3.45%	7.95%
	Industry Representative	0.00%	0.11%
	Non-Physician-in-Training	0.00%	0.02%
	Non-physician Doctoral	0.00%	0.11%
Practice Setting	Academic	37.93%	24.86%
	Community	62.07%	75.28%
Country	United States	100%	99.94%

e-Table 2. Outcomes for utilizing EBUS-TBNA, presence of an institutional policy and routinely testing for biomarkers by both practice setting and presence of interventional training.

		Academic Generalists (n = 94)	Academic Interventionalists (n = 54)	Community Generalists (n = 268)	Community Interventionalists (n = 37)
No. (%) Choosing EBUS-TBNA as most often performed procedure to diagnose advanced NSCLC		88 (93.6%)	54 (100%)	218 (81.3%)	36 (97.3%)
No. (%) Who perform EBUS-TBNA		52 (55.3%)	54 (100%)	137 (51.1%)	37 (100%)
No. (%) Reporting an institutional policy		48 (51%)	37 (68.5%)	117 (43.7%)	17 (46%)
No. (%) of EBUS-TBNA procedures performed per month	Do not perform EBUS	42 (44.7%)	0 (0%)	131 (48.9%)	0 (0%)
	≤ 3	9 (9.6%)	3 (5.6%)	49 (18.3%)	0 (0%)
	4-6	24 (25.5%)	2 (3.7%)	63 (23.5%)	8 (21.6%)
	≥7	18 (19.2%)	49 (90.7%)	25 (9.3%)	29 (78.4%)
No. (%) Reporting routinely testing for the following biomarkers	EGFR	93 (98.9%)	54 (100%)	262 (97.6%)	37 (100%)
	ALK	89 (94.7%)	54 (100%)	249 (92.9%)	37 (100%)
	BRAF	43 (45.7%)	39 (72.2%)	94 (35.1%)	25 (67.6%)
	ALK	38 (40.4%)	43 (79.6%)	107 (29.9%)	30 (81.1%)
	NTRK	15 (16%)	11 (20.4%)	29 (10.8%)	2 (5.4%)
	PD-L1	71 (75.5%)	53 (98.2%)	185 (69%)	37 (100%)

e-Table 3. Characteristics of providers who perform EBUS-TBNA[a]

How many EBUS-TBNA procedures do you perform per month? (n = 279)	Total Respondents, (%)
≤ 3	61 (22%)
4-6	97 (35%)
7-10	37 (13%)
> 10	84 (30%)
During the past 3 years, has the volume of EBUS-TBNA procedures that you order/perform? (n= 281)	
has increased	210 (75%)
has decreased	14 (5%)
has stayed about the same	57 (20%)
In patients undergoing EBUS-TBNA by you, how many separate passes do you make per sample site to collect tissue for molecular analysis after a lung cancer diagnosis has been established? (n = 281)	
0-2	39 (14%)
3-4	153 (55%)
5-6	68 (24%)
≥ 7	20 (7%)
What variables determine the number of passes per sample site to collect tissue for molecular analysis after a lung cancer diagnosis has been established if rapid on-site evaluation (ROSE) is used? (N = 280)	
Needle size	37 (13%)
Confidence that adequate tissue has been collected for molecular testing	253 (90%)
How many newly diagnosed patients per month are you asked to perform repeat biopsy using EBUS-TBNA to resend for molecular analysis (n = 280)	
0	122 (44%)
1	104 (37%)
2	40 (14%)
3	7 (2.5%)
≥ 4	7 (2.5%)
Are you aware of any specific guidelines or protocols regarding the number of passes a bronchoscopist should make when performing EBUS-TBNA? (n = 280)	
yes	177 (63%)
no	103 (37%)
Which guidelines or protocols do you currently adhere to when performing EBUS-TBNA? (n = 177)	
Not routinely adhering to any guidelines	14 (8%)
National guidelines from CHEST, Society of Clinical Pathologists, or National Comprehensive Cancer Network (NCCN)	142 (80%)
Our practice/institution established guidelines	25 (14%)
Other	12 (7%)
Is rapid on-site evaluation (ROSE) available at the location where EBUS-TBNA tissue samples are collected from your patient? (n = 280)	
yes	234 (84%)
no	46 (16%)
If ROSE is not available, do you send samples to pathology preserved using cell block cytology? (n = 46)	
yes	39 (85%)
no	7 (15%)
Please rate your level of agreement with the following statement: EBUS-TBNA samples preserved in cell block cytology are just as useful as core biopsy in terms of generating enough tissue in one procedure for diagnostic and molecular testing purposes. (n=280)	
Somewhat disagree	2 (1%)
Strongly disagree	28 (10%)
Neither agree or disagree	34 (12%)
Somewhat agree	88 (31%)
Strongly agree	128 (46%)

[a]The questions in this table were only available to pulmonologists who reported performing EBUS-TBNA themselves.

e-Table 4. Knowledge and practices related to biomarker testing and targeted therapies

How important is it to determine the type of cancer cell (adenocarcinoma vs squamous carcinoma) when you are evaluating a patient for lung cancer? (n = 453)		Total Respondents, (%)
	Slightly important	9 (2%)
	Moderately important	22 (5%)
	Important	59 (13%)
	Very important	264 (80%)
How frequently do you determine the cell type of lung cancer cell when evaluating a patient for lung cancer? (n = 453)		
	On some patients	7 (2%)
	On most patients	173 (38%)
	Always	274 (60%)
Thinking about your patients who have been diagnosed with advanced lung cancer (stage III or IV), does your institution have a specific policy regarding how tissue samples are sent for testing, or does it vary according to the preference of the clinician who is ordering the testing? (n = 453)		
	Institution has a specific policy	220 (48%)
	Practice varies according to the preference of the clinician	234 (52%)
Thinking about your patients who have been diagnosed with ADVANCED stage lung cancer (stage III or IV), which of the following best describes your institutional approach to sending tissue samples for molecular testing (EGFR, ALK, etc.)? (n = 453)		
	All samples are routinely sent for molecular testing.	178 (39%)
	Samples are only sent for testing once the cell type has been determined.	164 (36%)
	Samples are sent for testing based on the work-up preference of the oncologist to whom the patient will be referred.	104 (23%)
	Other	8 (2%)
At your institution, who ORDERS molecular testing on tissue samples? (n = 453)		
	Pulmonologist orders it	104 (23%)
	Oncologist orders it	166 (37%)
	Pathologist orders it	141 (31%)
	Tumor board discussion first, then testing is ordered	33 (7%)
	Not sure	10 (2%)
Does your hospital lab perform molecular testing in-house or are samples sent to an outside lab for analysis? (n = 453)		
	In-house lab	84 (19%)
	Outside lab	201 (44%)
	Combination of in house and outside labs	140 (31%)
	Not sure	29 (6%)
What is an acceptable time to wait for the results of molecular testing before initiating treatment? (n = 453)		
	1 week	222 (49%)
	2 weeks	197 (43.5%)
	3 weeks	16 (3.5%)
	Longer than 3 weeks if that's what it takes to establish the right diagnosis	18 (4%)
To the best of your knowledge, are there FDA-approved drugs for the following cell mutation targets? (n = 445)		
	EGFR	331 (74%)
	ALK	376 (84%)
	BRAF	184 (41%)
	ROS1	157 (35%)
	PD-L1	357 (80%)
	T790M	115 (26%)
	RET	64 (14%)

e-Appendix 1.

Biomarker and Staging Survey

Screening

1. Are you a...
*

- General Pulmonologist
- Interventional Pulmonologist
- Intensivist
- Thoracic Surgeon
- Fellow
- Other (please specify)

2. Which of the following best describes your practice setting?
*

- University-based academic medical center
- Community-based tertiary care hospital
- Community-based general hospital
- Community-based private practice

3. Do you see patients at least one-half day per week?
*

- Yes
- No

4. How many new cases of lung cancer, on average, do you diagnose in a typical month?
*

- None
- 1-4
- 5-9
- 10-14
- 15 or more

Practice Profile

5. Approximately what percentage of the cancer patients who you see for diagnosis and/or staging are discovered to have advanced (stage IV) lung cancers?

- ○ 1-25%
- ○ 26-50%
- ○ 51-75%
- ○ Greater than 75%

6. What is the approximate survival rate for your patients diagnosed with advanced stage (stage IV) lung cancer who DO NOT undergo treatment?
*

- ○ Less than 3 months
- ○ 3-6 months
- ○ 7-12 months
- ○ 1-2 years
- ○ More than 2 years

7. What is the approximate survival rate for your patients diagnosed with advanced stage (stage IV) lung cancer who UNDERGO TREATMENT?
*

- ○ Less than 3 months
- ○ 3-6 months
- ○ 7-12 months
- ○ 1-2 years
- ○ More than 2 years

EBUS Referral

8. Which of the following biopsy/tissue sampling techniques do you perform most often with your patients (regardless of whether you perform the actual procedure)? PLEASE CHECK ALL THAT APPLY.
*

- ☐ Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA)
- ☐ Transthoracic needle biopsy
- ☐ Surgical specimen
- ☐ Mediastinoscopy

9. Do you perform or refer patients for EBUS-TBNA to provide a cancer diagnosis and stage?
*

- ○ Yes, I perform EBUS-TBNA.
- ○ No, I refer to another clinician.

10. How many EBUS-TBNA procedures do you perform per month?

- ≤ 3
- 4-6
- 7-10
- >10

11. What are the main reasons that only a few, if any, of your patients being evaluated for lung cancer undergo EBUS-TBNA? PLEASE CHECK ALL THAT APPLY.
*

- Do not have access to the technology.
- Do not have rapid onsite-evaluation (ROSE) capability.
- Do not believe it is useful in getting adequate tissue sample for testing.
- Other (please specify)

EBUS Volume

12. During the past 3 years, has the volume of EBUS-TBNA procedures that you order/perform...
*

- Increased
- Decreased
- Stayed about the same

13. Do you typically perform EBUS-TBNA yourself or do you refer the patient to another type of clinician?
*

- Typically perform the procedure yourself.
- Refer to an interventional pulmonologist.
- Refer to other physician.

EBUS Practice

14. In patients undergoing EBUS-TBNA by you, how many separate passes do you make per sample site to collect tissue for molecular analysis after a lung cancer diagnosis has been established?
*

- 0
- 1-2
- 3-4
- 5-6
- 7 or more

15. What variables determine the number of passes per sample site to collect tissue for molecular analysis after a lung cancer diagnosis has been established if rapid on-site evaluation (ROSE) is used? PLEASE BE AS SPECIFIC AS POSSIBLE.
*

- ☐ Size of needle
- ☐ Confidence that enough tissue has been collected for molecular testing
- ☐ Other (please specify)

16. How many newly diagnosed patients per month are you asked to perform REPEAT BIOPSY using EBUS-TBNA to resend for molecular analysis?
*

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4 or more

Guidelines

17. Are you aware of any specific guidelines or protocols regarding the number of passes a bronchoscopist should make when performing EBUS-TBNA?
*

- ○ Yes
- ○ No

18. Which guidelines or protocols do you currently adhere to when performing EBUS-TBNA? PLEASE CHECK ALL THAT APPLY.
*

- ☐ There are no guidelines that I routinely adhere to at this time.
- ☐ National guidelines from CHEST, Society of Clinical Pathologists, or National Comprehensive Cancer Network (NCCN).
- ☐ Our practice/institution has established guidelines.
- ☐ Other (please specify)

ROSE

19. Is rapid on-site evaluation (ROSE) available at the location where EBUS-TBNA tissue samples are collected from your patient?
*

- ○ Yes
- ○ No

20. If ROSE is not available, do you send samples to pathology preserved using cell block cytology? *

- Yes
- No

21. Please rate your level of agreement with the following statement: EBUS-TBNA samples preserved in cell block cytology are just as useful as core biopsy in terms of generating enough tissue in one procedure for diagnostic and molecular testing purposes. *

- Strongly agree
- Somewhat agree
- Neither agree or disagree
- Somewhat disagree
- Strongly disagree

Determining Cell Type

22. How important is it to determine the type of cancer cell (adenocarcinoma vs squamous carcinoma) when you are evaluating a patient for lung cancer? *

- Very important
- Important
- Moderately important
- Slightly important
- Not important

23. How frequently do you determine the cell type of lung cancer cell when evaluating a patient for lung cancer? *

- Always
- On most patients
- On some patients
- Only a few patients
- Never

Lab Procedures

24. Thinking about your patients who have been diagnosed with ADVANCED stage lung cancer (stage III or IV), does your institution have a specific policy regarding how tissue samples are sent for testing, or does it vary according to the preference of the clinician who is ordering the testing? *

- Institution has a specific policy.
- Practice varies according to the preference of the clinician.

25. Thinking about your patients who have been diagnosed with ADVANCED stage lung cancer (stage III or IV), which of the following best describes your institutional approach to sending tissue samples for molecular testing (*EGFR, ALK*, etc.)?
*

- ○ All samples are routinely sent for molecular testing.
- ○ Samples are only sent for testing once the cell type has been determined.
- ○ Samples are sent for testing based on the work-up preference of the oncologist to whom the patient will be referred.
- ○ Other (please specify)

Testing Orders

26. At your institution, who ORDERS molecular testing on tissue samples?
*

- ○ Pulmonologist orders it
- ○ Oncologist orders it
- ○ Pathologist orders it
- ○ Tumor board discussion first, then testing is ordered.
- ○ Not sure

27. Does your hospital lab perform molecular testing in-house, or are samples sent to an outside lab for analysis?
*

- ○ In-house lab
- ○ Outside lab
- ○ Combination of in house and outside labs
- ○ Not sure

Biomarker Awareness

28. Outside of clinical trials, which biomarkers do you routinely test for? PLEASE CHECK ALL THAT APPLY.
*

- ☐ EGFR
- ☐ ALK
- ☐ BRAF
- ☐ ROS1
- ☐ NTRK
- ☐ PD-L1
- ☐ HER2
- ☐ KRAS
- ☐ MET
- ☐ RET
- ☐ TMB

29. What is an acceptable time to wait for the results of molecular testing prior to initiating treatment?

- 1 week
- 2 weeks
- 3 weeks
- Longer than 3 weeks if that's what it takes to establish the right diagnosis

Rx Awareness

30. To the best of your knowledge, are there FDA-approved drugs for the following cell mutation targets? *

	Yes	No	Not Sure
EGFR exon 19 deletions or exon 21 substitution mutations			
ROS1			
PD-L1			
BRAF			
T790M			
ERBB2 (HER2)			
RET			
ALK positive			

31. Of patients who have progressed on an EGFR tyrosine kinase inhibitor, eg, erlotinib (Tarceva), for what percentage do you perform mutational testing for T790M EGFR resistance mutation? PLEASE PROVIDE YOUR BEST ESTIMATE. *

- 1-25%
- 26-50%
- 51-75%
- Greater than 75%

Mediastinal Guideline Awareness

32. Do national guideline recommendations exist for invasive mediastinal staging for lung cancer? *

- Yes
- No
- Uncertain

Guideline Use

33. Which guideline(s) do you prefer or follow? PLEASE CHECK ALL THAT APPLY.
*

- ☐ National Comprehensive Cancer Network (NCCN)
- ☐ American College of CHEST Physicians
- ☐ Other (please specify)

34. Guideline-recommended indications for invasive mediastinal staging are largely based on . . . ? PLEASE CHECK ALL THAT APPLY.
*

- ☐ The sensitivity and specificity of individual invasive mediastinal staging procedures (eg EBUS, mediastinoscopy) for mediastinal nodal disease.
- ☐ Evidence demonstrating that guideline adherence leads to or is associated with better patient outcomes.
- ☐ Expert opinion
- ☐ Uncertain
- ☐ Other (please specify)

35. What is the level of evidence supporting guideline-recommended indications for invasive mediastinal staging? SELECT ONE.
*

- ○ IA – Evidence from meta-analysis of randomized controlled trials.
- ○ IB – Evidence from at least one randomized controlled trial.
- ○ II – Evidence from at least one controlled study without randomization.
- ○ III – Evidence from nonexperimental descriptive studies, comparative studies, correlation studies, or case-control studies.
- ○ IV – Evidence from expert committee reports or opinions or clinical experience of respected authorities.
- ○ Uncertain

36. Are guideline recommendations for invasive mediastinal staging up to date?
*

- ○ Yes
- ○ No
- ○ Uncertain

37. Please select all of the following guideline-recommended indications for invasive mediastinal staging. PLEASE CHECK ALL THAT APPLY *

- ☐ Central tumors
- ☐ Tumors <3 cm
- ☐ Nodes >1.0 cm noted on CT (scan ipsilateral or contralateral hilar and/or mediastinal nodes)
- ☐ FDG uptake within mediastinal lymph nodes
- ☐ FDG uptake within ipsilateral hilar lymph nodes

Attitudes Toward Guidelines

38. Please indicate your level of agreement with the following statements about guideline recommendations for invasive mediastinal staging. *

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Guideline recommendations are based on a satisfactory level of scientific evidence.	○	○	○	○	○
Guideline recommendations are generalizable to my patients.	○	○	○	○	○
Guideline recommendations are clear and easy to understand.	○	○	○	○	○
Guideline recommendations are easy to implement in routine clinical practice.	○	○	○	○	○
Guideline recommendations help me make better staging and treatment decisions.	○	○	○	○	○
Guideline recommendations help me achieve the best possible patient outcome.	○	○	○	○	○
Guideline recommendations are standard of care at my institution.	○	○	○	○	○
Guideline recommendations are applicable to most patients in my practice.	○	○	○	○	○

39. Please indicate why you disagreed with any of the previous statements. *

Barriers to Guideline Use

40. Please indicate how often you perceive each of the items below to be a **barrier to adherence** to invasive mediastinal staging guideline recommendations.

*

	Never	Almost Never	Sometimes	Almost Always	Always
Lack of evidence linking guideline adherence to change in management.	○	○	○	○	○
Lack of evidence linking guideline adherence to better patient outcomes.	○	○	○	○	○
Difficulty in implementing guideline recommendations into routine practice.	○	○	○	○	○
Access to facilities and/or equipment for performing all available techniques for invasive mediastinal staging.	○	○	○	○	○
Access to facilities and/or equipment for performing mediastinoscopy.	○	○	○	○	○
Access to facilities or equipment for performing EBUS and/or EUS.	○	○	○	○	○
Access to providers who perform invasive mediastinal staging.	○	○	○	○	○
Time delays associated with additional testing.	○	○	○	○	○
Patient anxiety associated with treatment delay.	○	○	○	○	○
Institutional pathways/guidelines do not exist.	○	○	○	○	○
Institutional and organizational support for multidisciplinary care is lacking.	○	○	○	○	○
Institutional reliance on radiologic findings (CT and/or CT-PET scanning) for mediastinal staging (example: if PET scan shows hypermetabolic activity in nodes, no need to sample nodes).	○	○	○	○	○

41. Please explain why you identified any of the items in the previous statements to be barriers to guideline adherence (any item answered "always" or "almost always"). *

Patient 1

42. Would you recommend invasive mediastinal staging prior to treatment for Patient 1?

*

- ○ Yes
- ○ No
- ○ Not sure

43. What was your reasoning for recommending invasive mediastinal staging for Patient 1?

*

- ○ The evidence supports invasive mediastinal staging prior to treatment.
- ○ Invasive mediastinal staging would change treatment.
- ○ Other (please specify)

44. What was your reasoning for not recommending invasive mediastinal staging for Patient 1? *

- The evidence does not support invasive mediastinal staging prior to treatment.
- Invasive mediastinal staging would not change treatment.
- It is generally not cost effective.
- Other (please specify)

Patient 2

45. Would you recommend invasive mediastinal staging prior to treatment for Patient 2? *

- Yes
- No
- Not sure

46. What was your reasoning for recommending invasive mediastinal staging for Patient 2? *

- The evidence supports invasive mediastinal staging prior to treatment.
- Invasive mediastinal staging would change treatment.
- Other (please specify)

47. What was your reasoning for not recommending invasive mediastinal staging for Patient 2? *

- The evidence does not support invasive mediastinal staging prior to treatment.
- Invasive mediastinal staging would not change treatment.
- It is generally not cost effective.
- Other (please specify)

Patient 3

48. Would you recommend invasive mediastinal staging prior to treatment for Patient 3? *

- Yes
- No
- Not sure

49. What was your reasoning for recommending invasive mediastinal staging for Patient 3?
*

- ○ The evidence supports invasive mediastinal staging prior to treatment.
- ○ Invasive mediastinal staging would change treatment.
- ○ Other (please specify)

50. What was your reasoning for not recommending invasive mediastinal staging for Patient 3?
*

- ○ The evidence does not support invasive mediastinal staging prior to treatment.
- ○ Invasive mediastinal staging would not change treatment.
- ○ It is generally not cost effective.
- ○ Other (please specify)

Patient 4

51. Would you recommend invasive mediastinal staging prior to treatment for Patient 4?
*

- ○ Yes
- ○ No
- ○ Not sure

52. What was your reasoning for recommending invasive mediastinal staging for Patient 4?
*

- ○ The evidence supports invasive mediastinal staging prior to treatment.
- ○ Invasive mediastinal staging would change treatment.
- ○ Other (please specify)

53. What was your reasoning for not recommending invasive mediastinal staging for Patient 4?
*

- ○ The evidence does not support invasive mediastinal staging prior to treatment.
- ○ Invasive mediastinal staging would not change treatment.
- ○ It is generally not cost effective.
- ○ The nodule, if lung cancer, is indolent and not likely to have metastasis to nodes.
- ○ Other (please specify)

Patient 5

54. Would you recommend invasive mediastinal staging prior to treatment for Patient 5? *

- Yes
- No
- Not sure

55. What was your reasoning for recommending invasive mediastinal staging for Patient 5? *

- The evidence supports invasive mediastinal staging prior to treatment.
- Invasive mediastinal staging would change treatment.
- Other (please specify)

56. What was your reasoning for not recommending invasive mediastinal staging for Patient 5? *

- The evidence does not support invasive mediastinal staging prior to treatment.
- Invasive mediastinal staging would not change treatment.
- It is generally not cost effective.
- Other (please specify)

Patient 6

57. Would you recommend invasive mediastinal staging prior to treatment for Patient 6? *

- Yes
- No
- Not sure

58. What was your reasoning for recommending invasive mediastinal staging for Patient 6? *

- The evidence supports invasive mediastinal staging prior to treatment.
- Invasive mediastinal staging would change treatment.
- Other (please specify)

59. What was your reasoning for not recommending invasive mediastinal staging for Patient 6? *

- ○ The evidence does not support invasive mediastinal staging prior to treatment.
- ○ Invasive mediastinal staging would not change treatment.
- ○ It is generally not cost effective.
- ○ The PET scan shows hypermetabolic activity in the mediastinum confirming N2 disease.
- ○ Other (please specify)

Patient 7

60. What should the patient receive next? *

- ○ Repeat EBUS with sampling of 4R.
- ○ Repeat EBUS with sampling of 4R and a total of two ipsilateral and one contralateral mediastinal lymph node.
- ○ Perform cervical mediastinoscopy with sampling of 4R and a total of two ipsilateral and one contralateral mediastinal lymph node.
- ○ Perform lobectomy without further invasive mediastinal staging.
- ○ Other (please specify)

Demographics

61. How many years have you been in clinical practice since your fellowship? *

62. Approximately what percentage of your time is dedicated to patient care? PLEASE ENTER YOUR RESPONSE AS A WHOLE NUMBER WITHOUT A % SIGN. *

63. What is your age?

(untitled)

64. What is your race? PLEASE CHECK ALL THAT APPLY. *

- ☐ White or Caucasian
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Other (please specify)
- ☐ Decline to answer

65. Are you of Hispanic or Latino heritage? *

- ○ Yes
- ○ No
- ○ Decline to answer

66. Do you identify as: *

- ○ Male
- ○ Female
- ○ Transgender
- ○ Decline to answer

67. In what state do you practice? *

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- Washington, D.C.
- West Virginia
- Wisconsin
- Wyoming
- Puerto Rico

Honorarium

68. On behalf of CHEST, the American Cancer Society, and the National Lung Cancer Roundtable, thank you for taking this survey. There are two ways to exercise your honorarium: you can donate to the CHEST Foundation or receive it in the form of an e-gift card good at Amazon and dozens of other online retailers. How would you like to receive your honorarium? *

- ○ Donate my honorarium to the CHEST Foundation.
- ○ Send the honorarium to me.

69. Please enter the email address where you would like your $50 e-gift card sent. Your address is being collected solely for the purpose of sending you your gift and will not be used for any other purposes.

Final Comments

70. Is there anything else you would like to tell us about biomarker testing or mediastinal staging for lung cancer?