



NATIONAL
LUNG CANCER
ROUNDTABLE



**Addressing Lung Cancer
Biomarker Testing
Through Project ECHO:
2022-2023 Expansion**

***Session Six: What's Next in
South Carolina?***



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Welcome to Session Six:

ACS/NLCRT Lung Cancer Biomarker Testing Project ECHO



Each ECHO session will be recorded and will be posted on echo.cancer.org



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Today's materials will be made available on echo.cancer.org



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Today's Agenda

- 01** **Agenda Preview & Introductions (10 min)**

- 02** **Didactic Presentation: Dr. Adam Fox, MUSC Charleston (15 min)**

- 03** **Didactic Q/A (5 min)**

- 04** **Case Presentation: Dr. Antoine Finianos, MUSC Florence (5 min)**

- 05** **Case Presentation Recommendations/Discussion (10 min)**

- 06** **Post-Session Poll & Wrap Up (5 min)**

This ACS/NLCRT Lung Cancer Biomarker Testing ECHO series is made possible by funding provided by:

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 **Takeda**

ONCOLOGY

Additional thanks to Foundation Medicine

MEET OUR EASTERN COMBINED HUB TEAM



Korey Hofmann, MPH
American Cancer Society
National Lung Cancer Roundtable
ECHO Coordinator



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American Cancer Society
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Coordinator*



Molly Black, MPH
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Riguey King
American Cancer Society
Virginia ECHO Coordinator



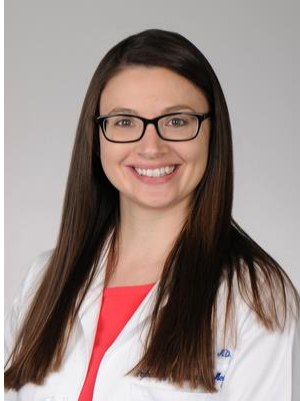
Annika Dean
American Cancer Society
Virginia ECHO Coordinator

MEET OUR SC ECHO HUB

Adam Fox, MD



Jessica Forcucci, MD



Mariam Alexander, MD



Claudia Miller, BSN, RN, ONC,
ONN-CG



Sean Callahan, MD



Gerard Silvestri, MD, MS



*Facilitative Partner

*Facilitative Partner



Kim Hale
ECHO Coordinator



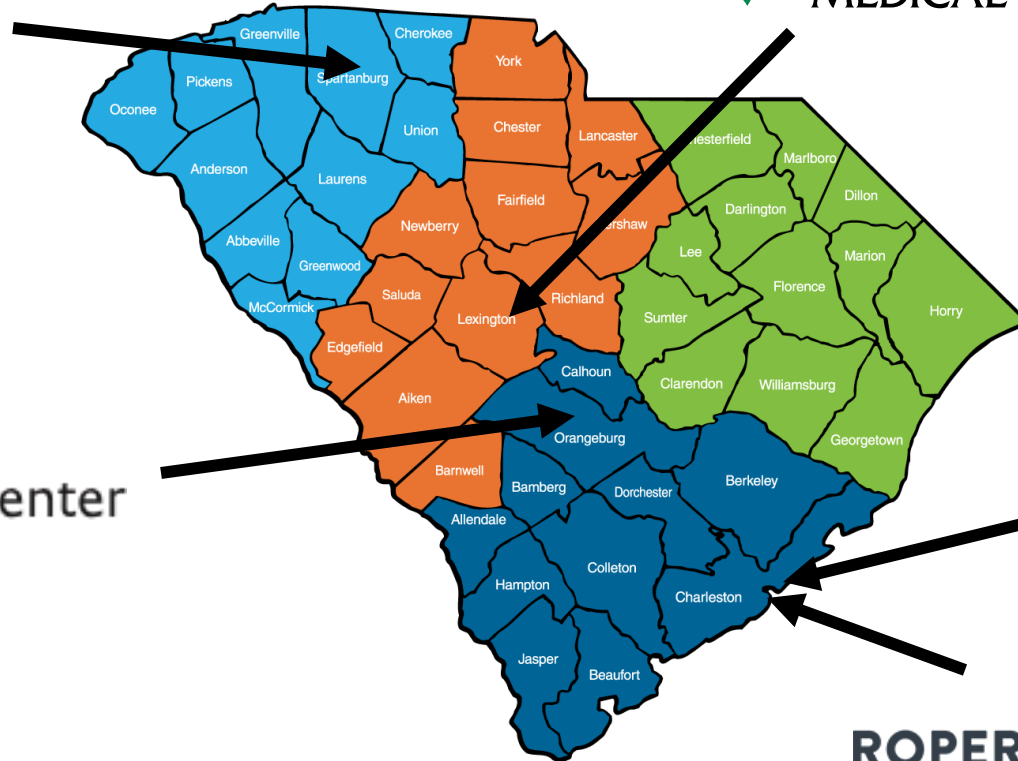
Molly Black
ECHO Coordinator

MEET OUR SC CANCER CENTER SPOKE SITES

 Spartanburg Regional
Healthcare System

 LEXINGTON
MEDICAL CENTER

 rmc
Regional Medical Center



 ROPER ST. FRANCIS
HEALTHCARE

SC ECHO SESSION SCHEDULE

Projected Month	Didactic	Combined Hub or State-Led	Didactic Presenter
10/7/2022 @ 8:00 AM ET	Series Kick-Off: Introduction to ECHO and Biomarker Testing Guidelines Overview	State-Led Session	Mariam Alexander, MD, PhD and Adam Fox, MD
10/24/2022 @ 1:00 PM ET	Understanding the Barriers and Pathways to Lung Cancer Biomarker Testing	Combined Hub*	Suresh Ramalingam, MD, FASCO
11/16/2022 @ 9:00 AM ET	Adequate Tissue for Sampling	Combined Hub*	Gerard Silvestri, MD, MS, FCCP
1/19/2023 @ 2:00 PM ET	Choice of Panel, Interpretation of Results, and Next Steps	Combined Hub*	TBD
2/22/2023 @ 1:00 PM ET	Improving Turnaround Time	Combined Hub*	Lynette Sholl, MD, FCAP
5/5/2023 @ 8:00 AM ET	Navigating Insurance Complexities	State-Led Session	State Faculty
6/7/2023 @ 8:00 AM ET	SC ECHO Session- Next Steps	State-Led Session	State Faculty



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Didactic Presentation: *Needs Assessment Results*



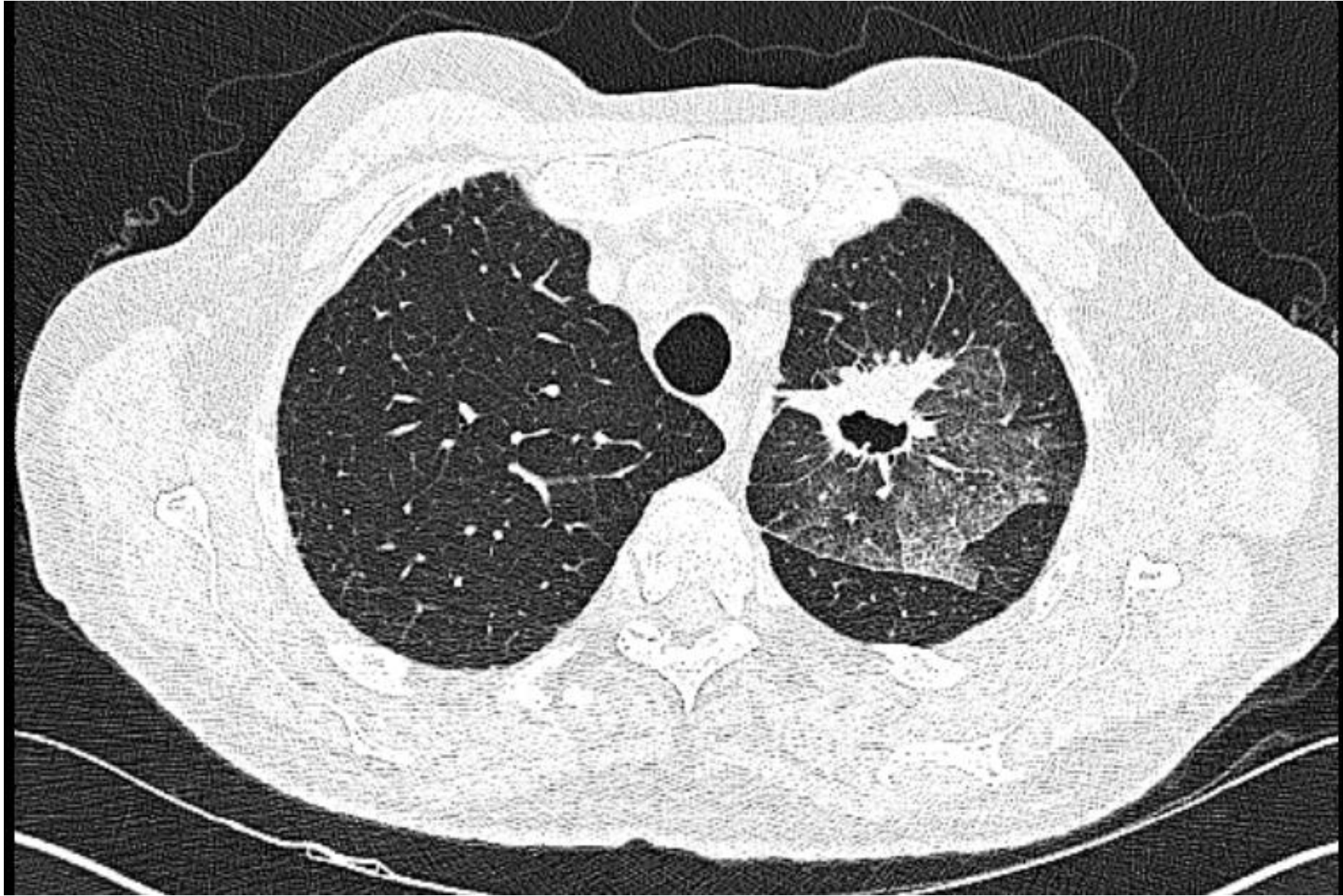
**ADAM FOX, MD
PULMONOLOGIST**

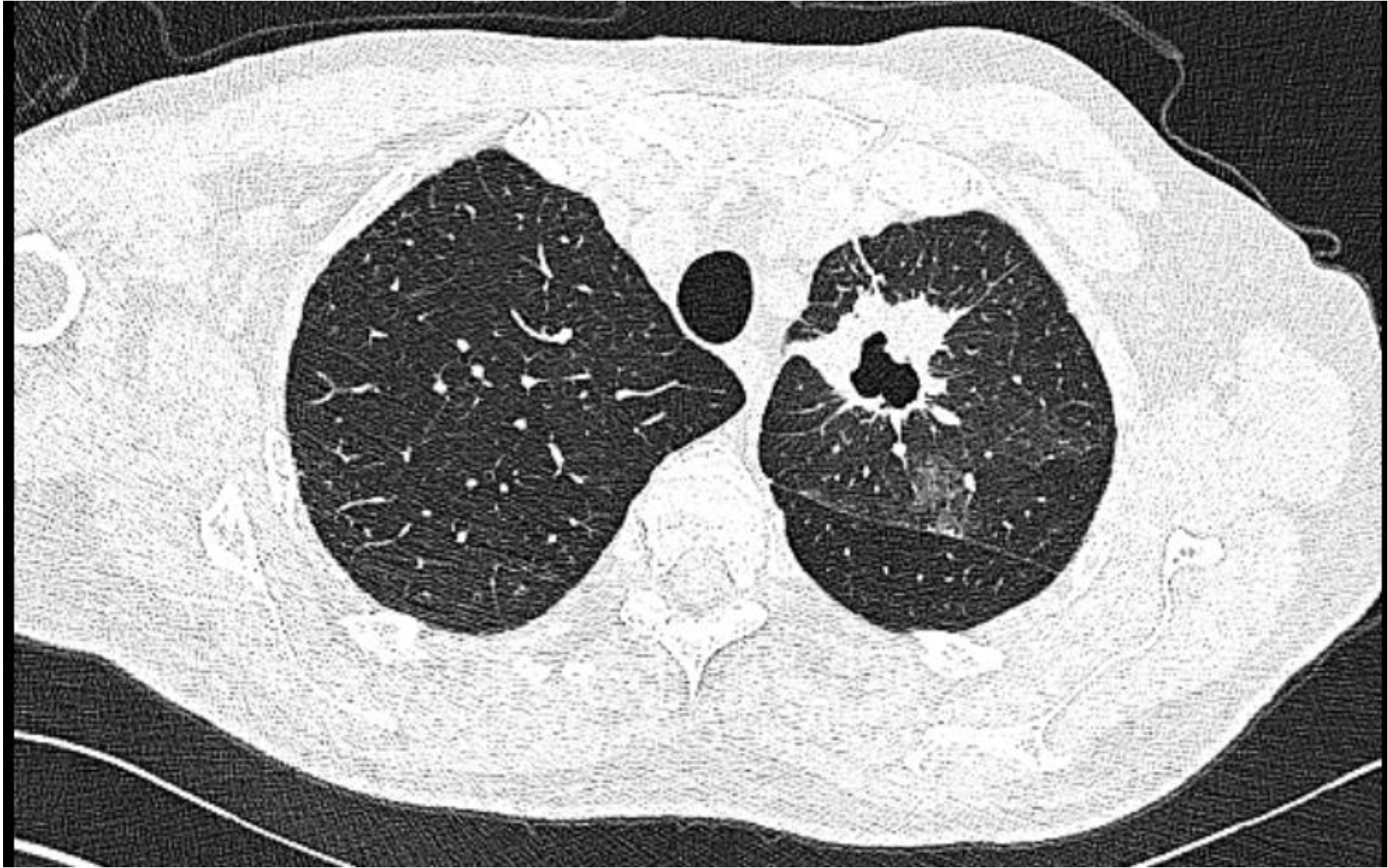
Didactic Q & A

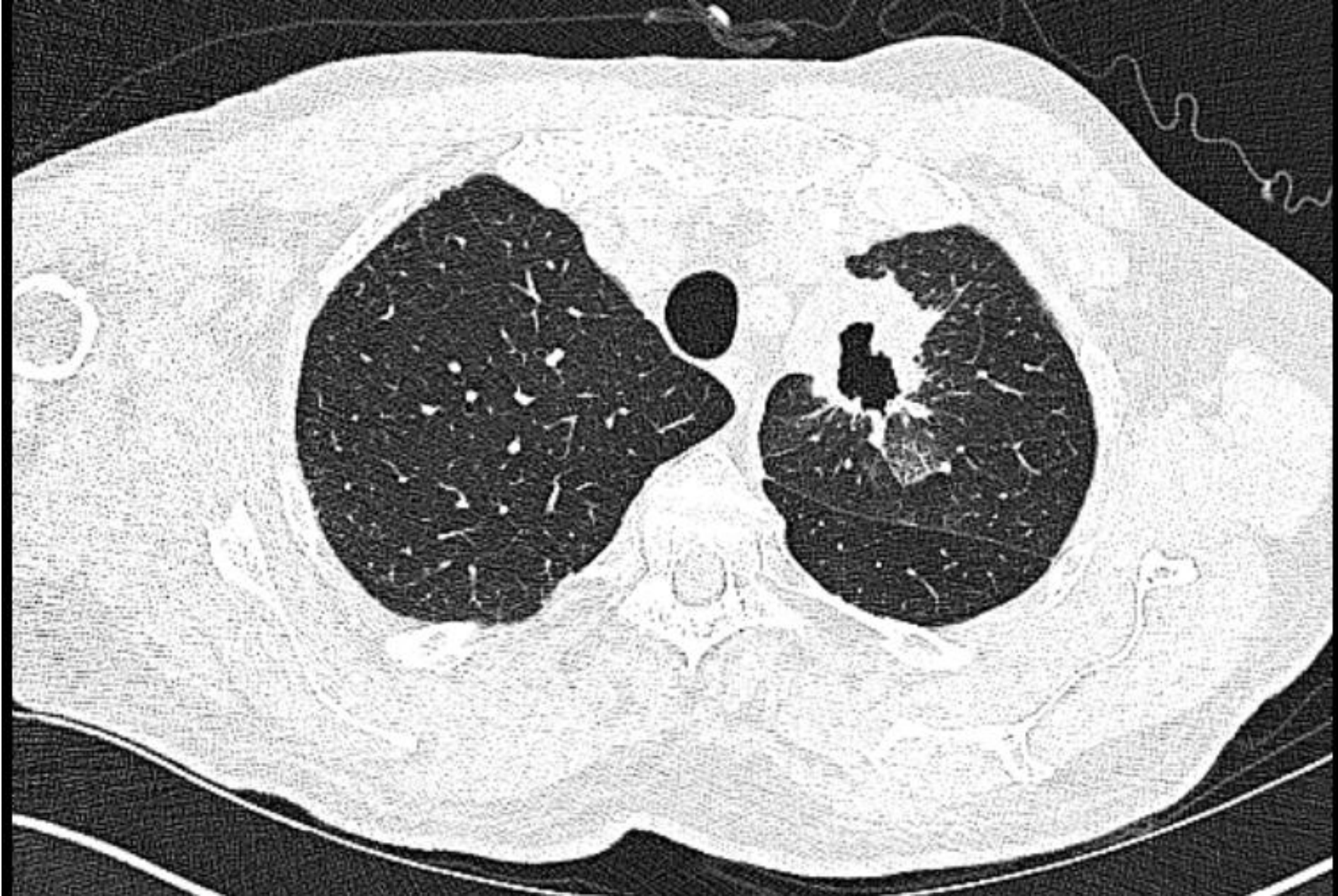


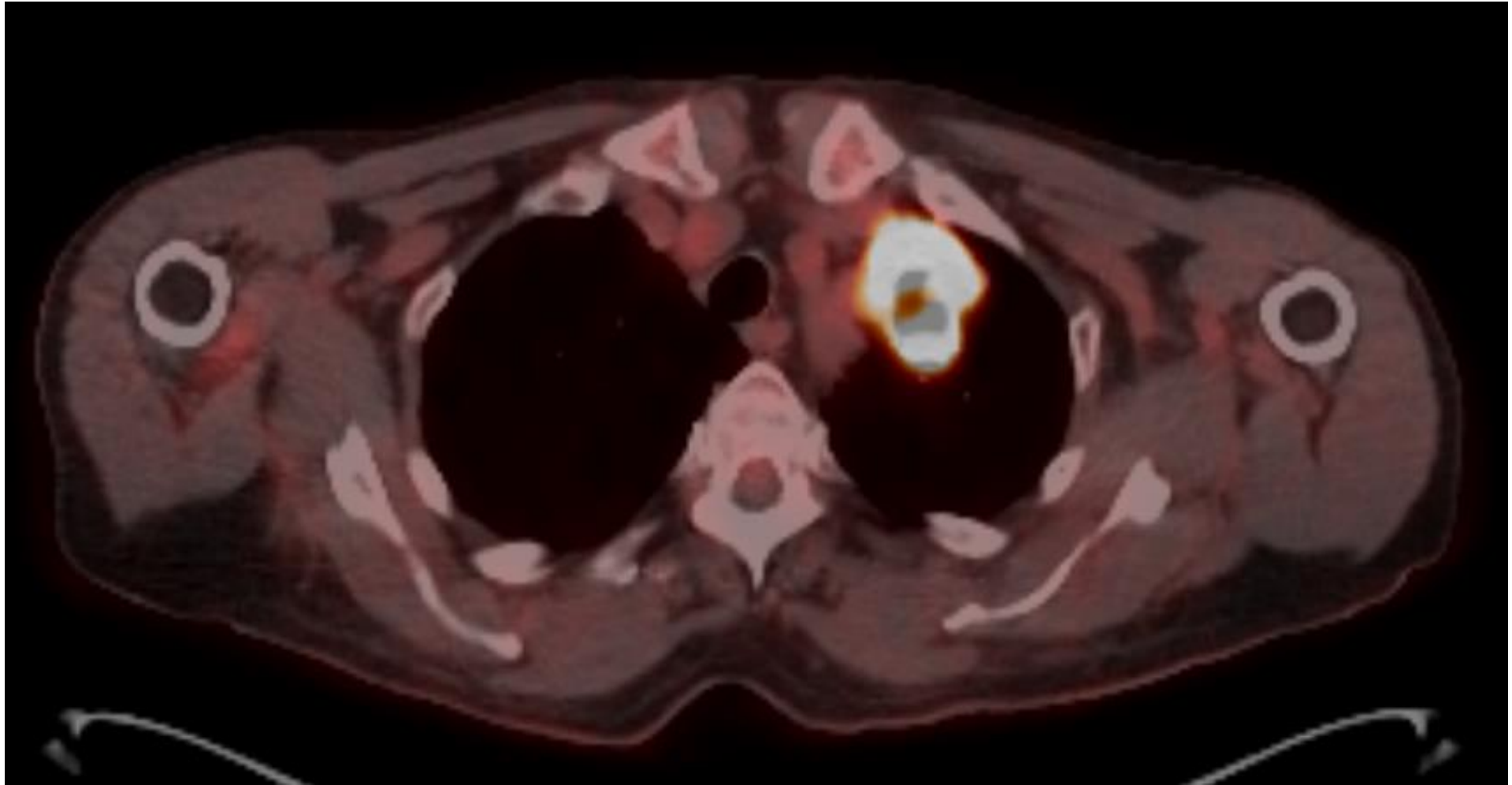
86 yo man with hemoptysis and infectious symptoms

- One episode of moderate volume hemoptysis, and somewhat acute shortness of breath, malaise, and improvement with azithromycin
 - PMH: Atrial fibrillation on AC
 - Avid cyclist
 - No history of tobacco use
-
- Plan to treat a a course of antibiotics and reassess ~ 1 month









Negative MRI brain



Robotic bronchoscopy:

- Suspicious for malignant cells
- Negative infectious evaluation



Pathology: Poorly differentiated carcinoma, atypical IHC (TTF-1/Napsin-A: negative; P40, CK 5/6: focal, patchy)



VATS:

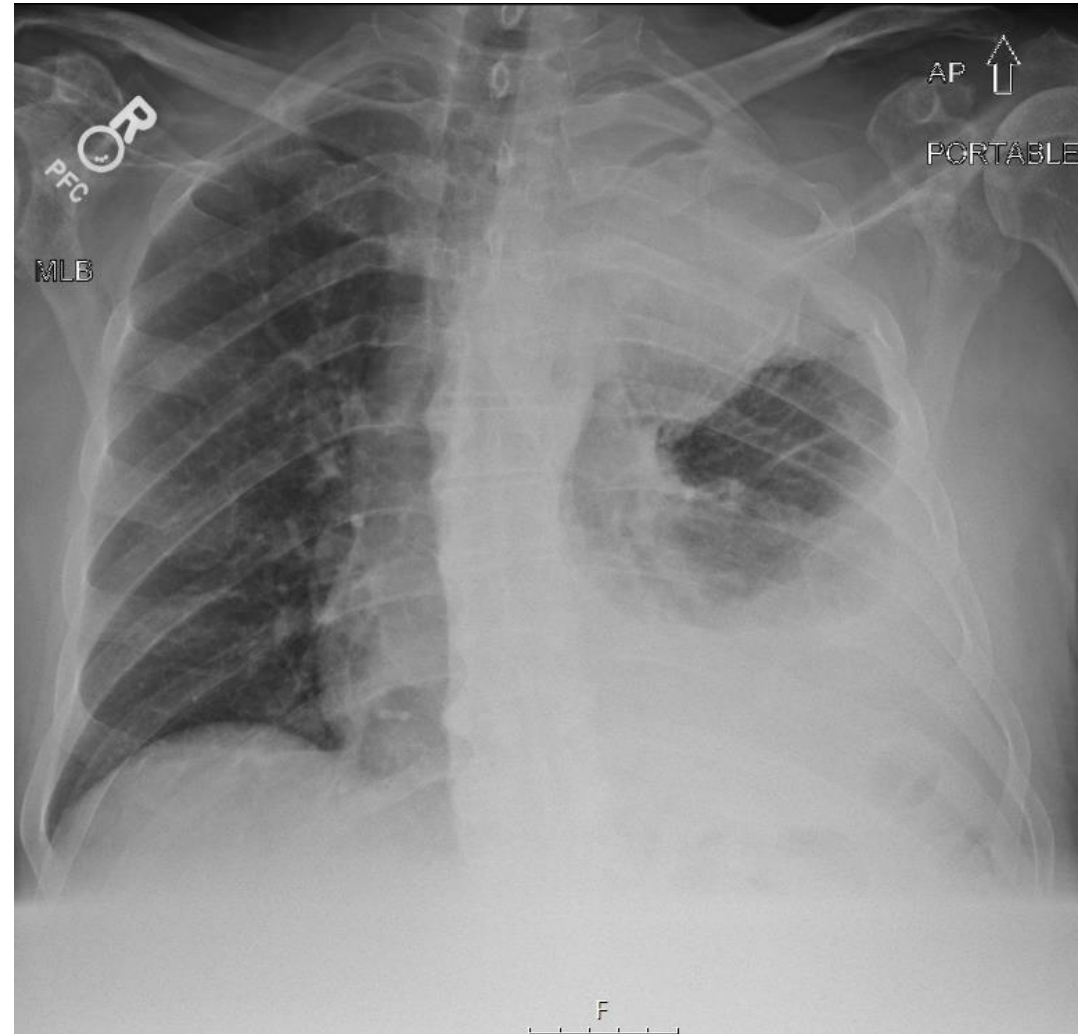
- Chest wall invasion
- Numerous distant pleural nodules
 - Excisional biopsy performed confirming carcinoma on-site
 - Same pathology as prior biopsy

Molecular results:

- NGS: KRAS G.12A, TP53
- FISH negative for fusions
- PD-L1 TPS = 50%

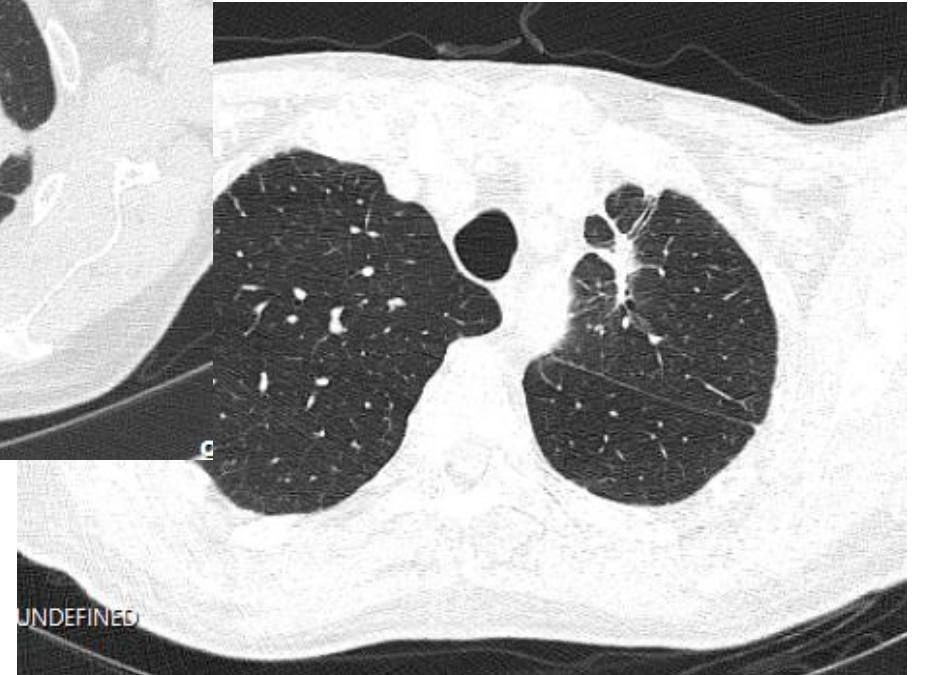
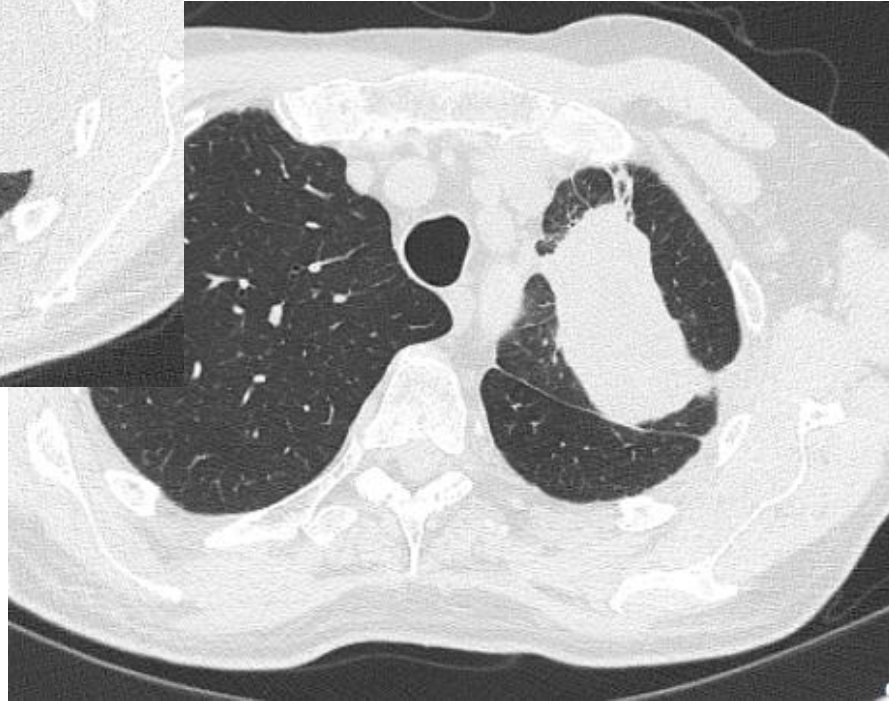


1 month
→



Thoracentesis confirms hemothorax. He is admitted, b/l DVTs confirmed, DOAC held, and IVC filter placed.

Started on single agent pembrolizumab



About 1 year's time on immunotherapy

Resolution of pleural effusion

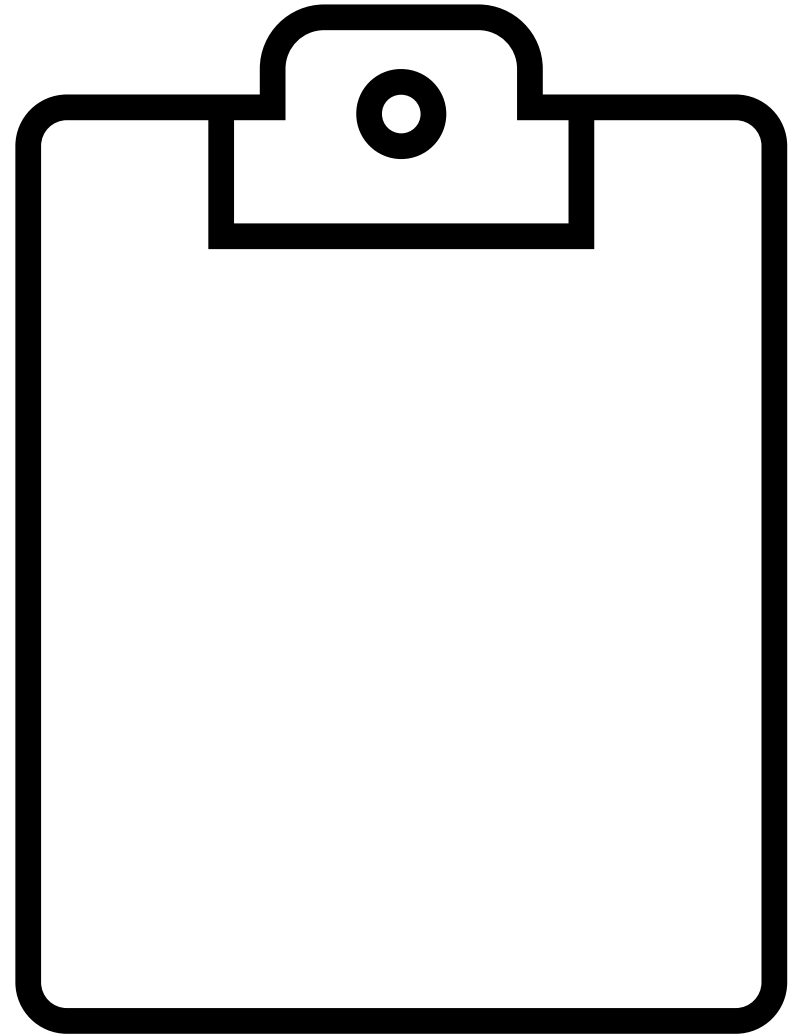
Has been back cycling after PT for frozen shoulder injury

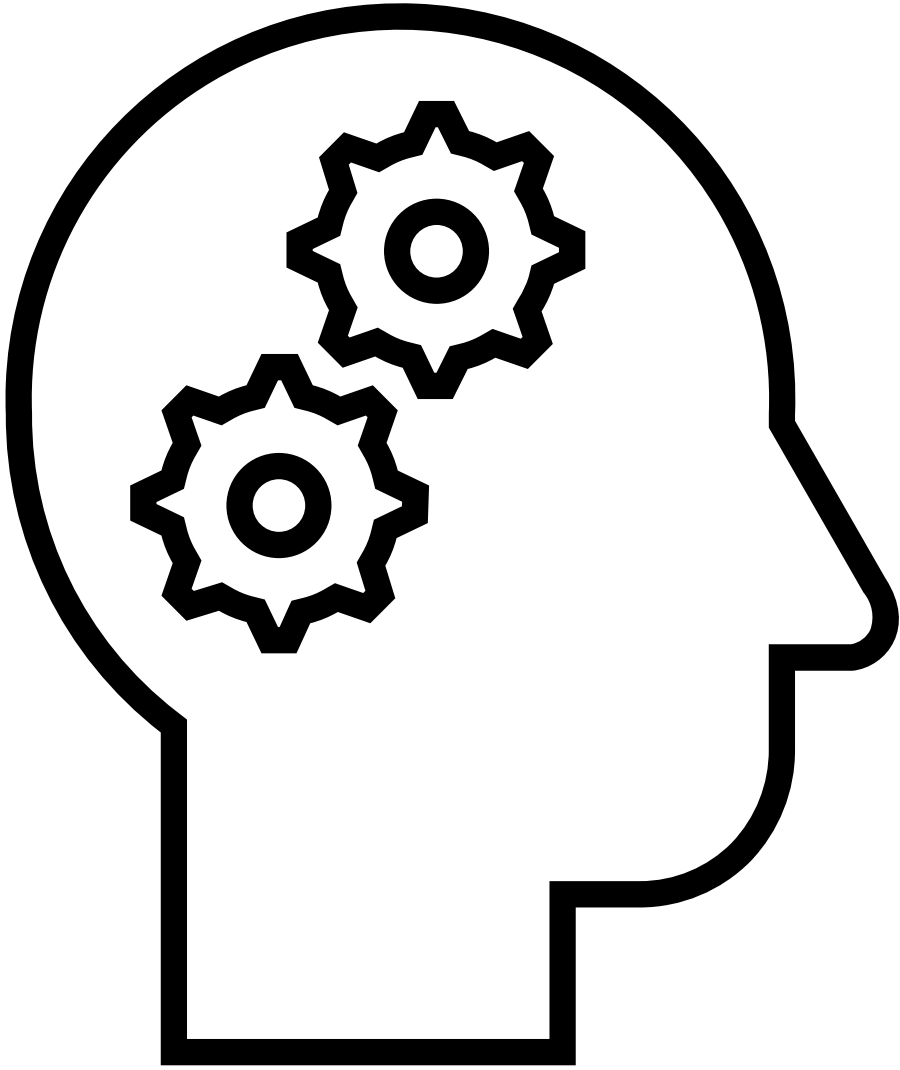
Open Discussion: Questions & Answers

- There are issues reported with both tissue and serum biomarker testing costs

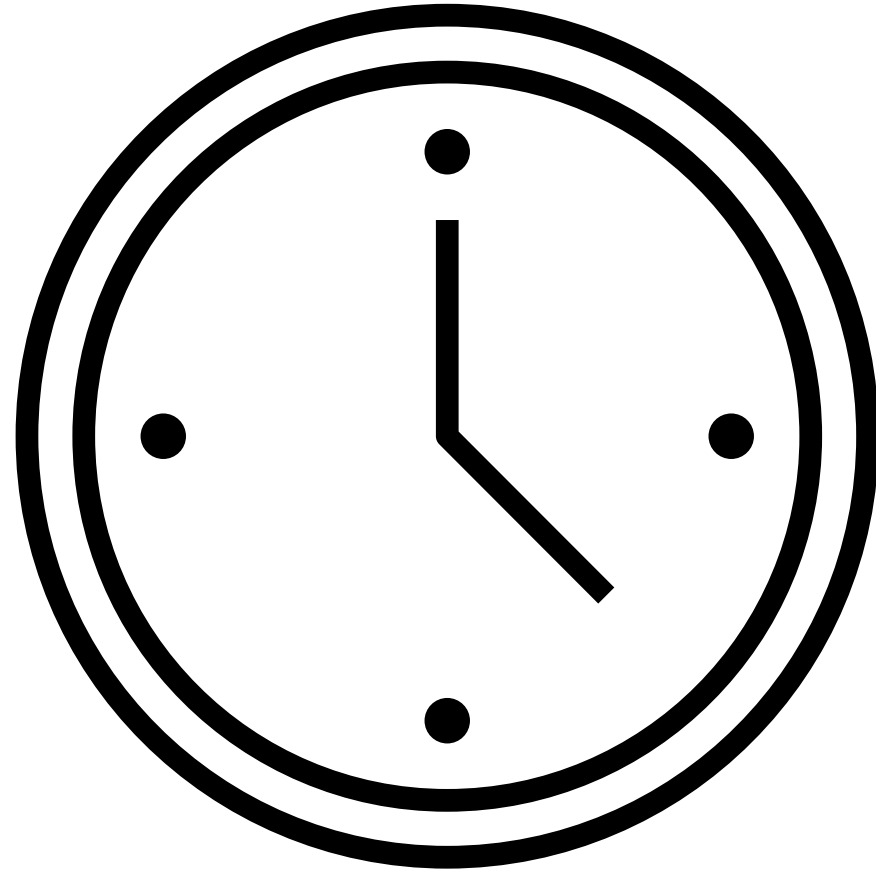
Interest in Topics

- Biomarkers and early-stage NSCLC
- Procedure selection
- Understanding limitations of biomarker testing (e.g., tissue vs liquid)





Other Future Directions or Topics?



Case Presentation: MUSC Health Florence Medical Center



Florence Medical Center



**Antoine
Finianos, MD**

*Oncologist/
Hematologist*

CASE SUMMARY

41-year-old former heavy smoker who presented to local ED with abdominal pain, nausea and vomiting in Spring 2022. CXR revealed right lower lobe nodule that was followed up with CT imaging. Imaging found 2.6x2.3cm RLL spiculated lesion and 0.8x0.6cm right apex lesion. Fiberoptic bronchoscopy with robotic bronchoscopy on 6/16/22 consistent with adenocarcinoma/NSCLC. Patient referred to MUSC Charleston for evaluation. Patient elected to pursue surgery prior to adjuvant treatment. Caris NGS testing performed on FNA from EBUS in June 2022. Limited tissue returned no actionable mutations. Patient proceeded with surgical resection. RUL wide wedge resection and RLL lobectomy plus mediastinal lymph node dissection on 9/8/2022. All lymph nodes negative.

CASE SUMMARY

In house cytogenetics and solid molecular tumor panels performed on both specimens at MUSC Charleston. 1)RLL 2.6 CM PD Gr 3 adenocarcinoma with separate tumor nodules in different ipsilateral lobe, no visceral pleural invasion, no LVI; R0; ALK/ROS1/MET/RET/BRAF/Pan-TRK neg, PDL-1 22C3 TPS 0; EGFR T790M +, TP53 splice site mutation plus VUS NOTCH 1 and 2)RUL: 1.2 cm MD Gr2 invasive adenocarcinoma, visceral pleural invasion present, no LVI, no PNI, R0; ALK/ROS1/MET/RET/Pan-TRK neg, PDL-1 22C3 TPS 70%, EGFR L858R and EGFR T790M mutation +Since she has two synchronous Stage IA cancers, she was not a candidate for any adjuvant treatment. Based on her molecular findings and strong family history of malignancies, she was referred for germline genetic testing/counseling.

PATIENT-LEVEL CASE PRESENTATION

DEMOGRAPHIC INFORMATION			
1. Age	2. Gender (Choose One)	3. Race/Ethnicity (Choose All that Apply)	
41 years old	Female <input checked="" type="checkbox"/> Male <input type="checkbox"/> Non-Binary/Third gender <input type="checkbox"/> Transgender female <input type="checkbox"/> Transgender male <input type="checkbox"/>	American Indian/Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American <input type="checkbox"/>	Hispanic/Latino <input type="checkbox"/> White <input checked="" type="checkbox"/> More than One Race <input type="checkbox"/> Other <input type="checkbox"/>
NON-SMALL CELL LUNG CANCER (NSCLC) HISTOLOGY & STAGE			
4. Diagnosis	5. Histology	6. Stage	
Initial Diagnosis <input checked="" type="checkbox"/> Recurred and or Progressed <input type="checkbox"/>	Adenocarcinoma <input checked="" type="checkbox"/> Squamous Cell <input type="checkbox"/> Large Cell <input type="checkbox"/>	Stage IA2 different primaries with both EGFR T790 M mutation of two primary lung cancers	
BIOMARKER TESTING			
7. Has biomarker testing been ordered for this patient (or will it be ordered)?		8. If biomarker testing was not ordered, please elaborate on the factors that precluded it:	
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Will be ordered <input type="checkbox"/>		N/a	

PATIENT-LEVEL CASE PRESENTATION

The next section is ONLY for those patients who HAVE received or WILL receive biomarker testing			
9. Which technique was used (or will be used) to obtain specimen for pathologic diagnosis? (Choose One)			
Bronchoscopic biopsy <input checked="" type="checkbox"/>		Mediastinoscopy <input type="checkbox"/>	
Endobronchial ultrasound-guided transbronchial lymph node aspiration (EBUS-TBNA) <input checked="" type="checkbox"/>		Surgical specimen <input type="checkbox"/>	
Image-guided percutaneous biopsy <input type="checkbox"/>		Thoracentesis/pericardiocentesis <input type="checkbox"/>	
Liquid biopsy <input type="checkbox"/>		Unsure <input type="checkbox"/>	
10. Which platform was/will be used for lung biomarker testing? (Choose One)		11. If single-gene test or short-cluster panel, please identify which genes were tested:	
Single-Gene Test <input type="checkbox"/>		ALK <input type="checkbox"/>	HER2 <input type="checkbox"/>
Short-Cluster Panel <input type="checkbox"/>		BRAF <input type="checkbox"/>	KRAS <input type="checkbox"/>
Multi-Gene Panel (next generation sequencing (NGS)) <input checked="" type="checkbox"/>		EGFR <input type="checkbox"/>	NTRK <input type="checkbox"/>
		MET <input type="checkbox"/>	PD-L1 <input type="checkbox"/>
			ROS1 <input type="checkbox"/>
			RET <input type="checkbox"/>
ADDITIONAL INFORMATION			
12. Please include any other information you would like to share with the group:			
2 different primaries with both EGFR T790 M mutation			

Case Presentation Discussion

Specific Question(s) to the Faculty

Q1

Given these molecular results, can we be certain that these are two separate primaries?

Q2

In such cases with her genetic findings, is there any role for family testing?

Q3

Q4





Wrap-Up & Post-Session Poll Questions

Reminder: Post-ECHO Series Assessment Survey



We need your help to continue improving this ECHO Series and appreciate your feedback.

Please check your email inbox and junk folders for an email from “redcap@vumc.org” with a Post-ECHO Survey link.



You will also receive a Six-Month Follow-Up Survey in late November/early December.



Materials and Resources will be available soon on the [ACS ECHO Website](#)



Questions: Contact korey.hofmann@cancer.org or kim.hale@cancer.org



THANK YOU