Addressing Lung Cancer Biomarker Testing Through Project ECHO

Case Presentation Form

Section 1: Presenter Information and Case Presentation Summary

1. **Presentation Date:** 11/10/2021
2. **Presenter Name(s):** Stephanie Smith
3. **Presenter Title(s):** Will update when determine who is presenting
4. **Organization/Health System:** Lewis Cancer & Research Pavilion @ St. Joseph's Candler
5. **Please summarize the case you are presenting to the group:** This is a case in which molecular biomarker testing was denied by insurance after being performed leaving the patient financially responsible for the bill.
6. **Which specific questions are you asking the faculty and the other participating spoke sites?**
   How do other sites perform molecular biomarker testing on all stages of lung cancer? We are aware that many sites aim to reflex all lung cancers, and in light of this recent denial, we are curious to know how other sites are able to reflex. For those that don't reflex, do you have a process/flowchart/SOP that you can share with us so that we can look at ways to streamline who orders the testing and when.

Section 2: System-Level Case Presentation

1. **Describe your current system or workflow:** *If available, feel free to provide workflow charts separately.*
   Biomarker testing is not automatically reflexed. At our site, biomarker testing is ordered after diagnosis of lung cancer. The ordering physician varies, as sometimes the treating pulmonologist orders and sometimes the treating oncologist orders the testing. Our site typically sends tissue to Neo Genomics for completion of a NeoTYPE Lung Profile. Turnround time varies significantly, and occasionally this leads to delays in making treatment decisions and starting **therapy.**
2. **What are the primary challenges/barriers:** *Include specifics on identified gaps and quality improvement methods used to clarify the root causes*.
   Not reflexing and not having a standard process with who orders testing can lead to delays. Insurance barriers, especially w/ Medicare 14 day rule. A large proportion of our lung cancer patients are diagnosed by a pulmonologist. When specimens are obtained by EBUS, occasionally the specimen is insufficient for molecular testing.
3. **Describe what you are trying to improve and any other relevant background information:**
   Who orders the testing and when. Also, how to protect patients from unexpected bills when testing is ordered in early stage lung cancer.

4. **Briefly describe your vision of what it will look like when it is working well:**

   NA

5. **Describe any recent changes (less than 6 months) made to this system or workflow, including when they were made and their impact:**

   NA

6. **If applicable, what data (quantitative, qualitative) do you have to augment your observations:**

   NA

Section 3: Patient-Level Case Presentation

DEMOGRAPHIC INFORMATION			
1. **Age**	2. **Gender (*Choose One*)**	3. **Race/Ethnicity (*Choose All that Apply*)**	
75	Female☐ Male☒ Non-Binary/Third gender☐ Transgender female☐ Transgender male ☐	American Indian/Alaska Native ☐ Asian ☐ Black/African American ☐	Hispanic/Latino ☐ White ☒ More than One Race ☐ Other ☐
NON-SMALL CELL LUNG CANCER (NSCLC) HISTOLOGY & STAGE			
4. **Diagnosis**	5. **Histology**	6. **Stage**	
Initial Diagnosis ☒ Recurred and or Progressed ☐	Adenocarcinoma ☐ Squamous Cell ☒ Large Cell ☐	Initially thought would be stage III. Ultimately diagnosed as stage IIB	
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 ☒ No ☐ Will be ordered ☐		**NA**	
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 ☐ Endobronchial ultrasound-guided transbronchial lymph node aspiration (EBUS-TBNA) ☒ Image-guided percutaneous biopsy ☐ Liquid biopsy ☐		Mediastinoscopy ☐ Surgical specimen ☐ Thoracentesis/pericardiocentesis ☐ Unsure ☐	
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 ☐ Short-Cluster Panel ☒ Multi-Gene Panel (next generation sequencing (NGS) ☒		ALK ☒ BRAF ☒ EGFR ☒	HER2 ☒ KRAS ☒ NTRK ☒ MET ☒ PD-L1 ☒ ROS1 ☒ RET ☒
ADDITIONAL INFORMATION			
12. **Please include any other information you would like to share with the group:** The patient presented to pulmonology and was initially felt to have a T3 tumor (T3N1, stage IIIA). The patient underwent bronchoscopy on 7/29/2021 which confirmed squamous cell carcinoma. Because of the initial staging of IIIA NSCLC, the pulmonologist ordered molecular testing on the tumor collected by EBUS. The patient was subsequently evaluated by medical oncology and radiation oncology, and the agreement was that this patient was a T1cN1Mo lung cancer, stage IIB. By this time, the tumor had already been sent for testing. The patient began chemo/radiation on 8/13/2021 with weekly concurrent chemotherapy, and the patient completed definitive treatment 9/27/2021. On 9/24/2021, the patient's			

spouse contacted the nurse navigator because the patient received a denial letter for the molecular tumor testing. The letter indicates that testing was denied because of the patient's stage did not meet criteria for testing. The ordering pulmonologist's office has submitted medical records to appeal the denial, which is pending as of 10/29/2021. The patient began consolidation chemotherapy 10/26/2021 with plans to initiate Imfinzi upon completion of chemotherapy.

Section 4: Faculty Recommendations

This section will be completed by the ACS ECHO Coordinator. Recommendations from our faculty will be documented below.

Click or tap here to enter text.

Assigned Case Presentation Number: Will be assigned by ACS