Addressing Lung Cancer Biomarker Testing Through Project ECHO

Case Presentation Form

Instructions

This case presentation form is intended to be completed and submitted electronically. Please email completed forms along with any optional supplemental information to Kelly.durden@cancer.org and carbon copy your regional ACS staff partner. We request that you submit your case presentation form **at least three business days** prior to your scheduled case presentation. Please do NOT submit a scan of a printed version of this form.

This form includes four sections: **Section 1: Presenter Information & Case Presentation Summary**, **Section 2: System-Level Case Presentation**, **Section 3: Patient-Level Case Presentation** and **Section 4: Faculty Recommendations**. You need to complete Section 1 and then, choose **either** Section 2 or Section 3. We recommend that each case presentation will range from **three minutes to five minutes**. Please do not include patient identifiers on this form or use any identifiers during the presentation. Please note, for patient-level case presentations, the faculty will provide guidance that should NOT be interpreted as direct medical advice.

Project ECHO Data Usage Statement

Project ECHO® collects registration, participation, questions/answers, chat comments, and poll responses for some teleECHO® programs. Your individual data will be kept confidential. These data may be used for reports, maps, communications, surveys, quality assurance, evaluation, research, and to inform new initiatives.

Section 1: Presenter Information and Case Presentation Summary

1. **Presentation Date:** 7/26/2021
2. **Presenter Name(s):** Rodolfo Bordoni
3. **Presenter Title(s):** MD
4. **Organization/Health System:** Northside Hospital Cancer Institute
5. **Please summarize the case you are presenting to the group:** mNSCLC carrying EGFR exon 20 mut, old an new treatment option.
6. **Which specific questions are you asking the faculty and the other participating spoke sites?** Different than in the past, how would you treat this patient nowadays?

Section 2: System-Level Case Presentation

1. **Describe your current system or workflow:** *If available, feel free to provide workflow charts separately.*
   Click or tap here to enter text.

2. **What are the primary challenges/barriers:** *Include specifics on identified gaps and quality improvement methods used to clarify the root causes.*
   Click or tap here to enter text.

3. **Describe what you are trying to improve and any other relevant background information:**
   Click or tap here to enter text.

4. **Briefly describe your vision of what it will look like when it is working well:**
   High and durable response, compared with recent past.

5. **Describe any recent changes (less than 6 months) made to this system or workflow, including when they were made and their impact:**
   On May 21, 2021, best patients outcome, yet.

6. **If applicable, what data (quantitative, qualitative) do you have to augment your observations:**
   Phase 1 CHRYSALIS study: Amivantamab with lazertinib in patients with EGFR-mutated NSCLC. Oral presentation 2021 American Society of Clinical Oncology (ASCO) Annual Meeting (Abstract #9006); Friday, June 4 .

Section 3: Patient-Level Case Presentation

<table>
<tr><td colspan="4">DEMOGRAPHIC INFORMATION</td></tr>
<tr><td>1. Age</td><td>2. Gender (Choose One)</td><td colspan="2">3. Race/Ethnicity (Choose All that Apply)</td></tr>
<tr><td>Click or tap here to enter text.</td><td>Female☐
Male☐
Non-Binary/Third gender☐
Transgender female☐
Transgender male ☐</td><td>American Indian/Alaska Native ☐
Asian ☐
Black/African American ☐</td><td>Hispanic/Latino ☐
White ☐
More than One Race ☐
Other ☐</td></tr>
<tr><td colspan="4">NON-SMALL CELL LUNG CANCER (NSCLC) HISTOLOGY & STAGE</td></tr>
<tr><td>4. Diagnosis</td><td>5. Histology</td><td colspan="2">6. Stage</td></tr>
<tr><td>Initial Diagnosis ☐
Recurred and or Progressed ☐</td><td>Adenocarcinoma ☐
Squamous Cell ☐
Large Cell ☐</td><td colspan="2">Click or tap here to enter text.</td></tr>
<tr><td colspan="4">BIOMARKER TESTING</td></tr>
<tr><td colspan="2">7. Has biomarker testing been ordered for this patient (or will it be ordered)?</td><td colspan="2">8. If biomarker testing was not ordered, please elaborate on the factors that precluded it:</td></tr>
<tr><td colspan="2">Yes ☐
No ☐
Will be ordered ☐</td><td colspan="2">Click or tap here to enter text.</td></tr>
<tr><td colspan="4">The next section is ONLY for those patients who HAVE received or WILL receive biomarker testing</td></tr>
<tr><td colspan="4">9. Which technique was used (or will be used) to obtain specimen for pathologic diagnosis? (Choose One)</td></tr>
<tr><td colspan="2">Bronchoscopic biopsy ☐
Endobronchial ultrasound-guided transbronchial lymph node aspiration (EBUS-TBNA) ☐
Image-guided percutaneous biopsy ☐
Liquid biopsy ☐</td><td colspan="2">Mediastinoscopy ☐
Surgical specimen ☐
Thoracentesis/pericardiocentesis ☐
Unsure ☐</td></tr>
<tr><td colspan="2">10. Which platform was/will be used for lung biomarker testing? (Choose One)</td><td colspan="2">11. If single-gene test or short-cluster panel, please identify which genes were tested:</td></tr>
<tr><td colspan="2">Single-Gene Test ☐
Short-Cluster Panel ☐
Multi-Gene Panel (next generation sequencing (NGS) ☐</td><td>ALK ☐
BRAF ☐
EGFR ☐</td><td>HER2 ☐
KRAS ☐
NTRK ☐
MET ☐</td><td>PD-L1 ☐
ROS1 ☐
RET ☐</td></tr>
<tr><td colspan="4">ADDITIONAL INFORMATION</td></tr>
<tr><td colspan="4">12. Please include any other information you would like to share with the group:
Click or tap here to enter text.</td></tr>
</table>

Section 4: Faculty Recommendations

Specific Question to the Faculty

Different than in the past, how would you treat this patient nowadays?

Clarifying Questions

Question from Dr. John Villano (UK Markey): How good is the CNS presentation (in amivantamab)?

Response from Dr. Bordoni: Bigger molecule. Not sure if it was reported in the original presentation. Not sure if anyone else on this call knows.

Dr. Villano: Group of us that use that therapy and an opportunity to group our efforts potentially.

Discussion/Recommendations

Dr. Bordoni: As the patient was being diagnosed, days before the report was back, her PD-L1 was reported at 65%. Many clinicians in Medical Oncology may use this information to start treating the patient with a single-agent immunotherapy and I thought that would be a mistake for this particular patient. Curious on the group's recommendations for this particular case or similar cases (recognizing this patient was from two years ago):

Dr. Raymond Osarogiagbon (Baptist):

Agree with you. There is very good emerging information to warn us that irrespective of a patient's PD-L1, patients who have certain driver mutations, including EGFR, do not respond nearly as well as you might expect to immunotherapy. Agree with staying away from this temptation. This is the same for ALK. This is not uniform for all driver mutations, but EGFR and ALK seem to be relatively non-responsive to immunotherapy. A mutation like KRAS does/may respond to immunotherapy.

Dr. Gerard Silvestri (Didactic Presenter for Session) (Medical University of South Carolina)

One thing that is tangentially related to your case presentation as you mentioned Bone Mets and that I did not mention in my presentation: Bone biopsies are inherently problematic when you are trying to do NGS because you must decalcify the bone and the DNA then is lost. For people who have the option for two metastatic sites, I would stay away from bone.

In the community we are hearing that some oncologists are starting traditional therapies or immunotherapies while waiting for NGS the results and that is something that we need to be mindful of and I don't particularly like. I'd love for our faculty members who are medical oncologists to share how disciplined they are to wait for NGS results before starting a patient's treatment.

Dr. Bruce Johnson (Dana-Farber Cancer Institute):

First, regarding amivantamab, with it just being approved earlier this summer. For those who saw the earlier publication this month in the *Journal of Clinical Oncology*, they published the results of 81 patients, who saw 40% response rate with the median progression-free survival of 8.3 months. This works pretty well in the second line, but it is not aspirin for a headache. They did not report any information on the CNS activity of the compound. This could be interpreted in a few ways and or it could just be too early.

Regarding Dr. Silvestri's question, for my patients who I see, it just happened this week, I had a patient who just received his diagnosis through EBUS and we were waiting for his genotype. This patient also had asymptomatic bone mets. I will see him back in one week to one week and a half to assess how he is doing while we wait for his biomarker testing results before embarking on his therapy. This is how I approach it if the patient is relatively stable. For some patients who are not stable enough to wait, we will need to start. I will also use to some extent clinical selection, for example if someone had a past heavy tobacco usage, we may commit to treating them a bit earlier.

Dr. Bordoni:

One comment in response to Dr. Silvestri's comments/earlier question: In the past, we were talking about not treating certain patients, like patients with EGFR, with immunotherapy. And some oncologists, even some within my network, stated that it is not a big deal as you can always switch the patient's treatment. Switching the patient's treatment may be easy for an oncologist, but it is not always easy for the patient. Recent evidence shows that if a patient is on immunotherapy, you stop immunotherapy and then, you switch to TKI, within maybe three months or longer, those patients may have severe or some long consequences, even including immune-related adverse effects. I think that Dr. Silvestri's comment is really important, it is not just the matter of switching to the right treatment, it is the right treatment from the beginning.

Assigned Case Presentation Number: Will be assigned by ACS