Neoadjuvant and Adjuvant Therapy for Early-Stage/ Resectable Non-Small Cell Lung Cancer (NSCLC): Physician Practices, Therapy Choice, & Challenges Among U.S. Oncologists

HSD73

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INTRODUCTION

- Non-small cell lung cancer (NSCLC) makes up 80-85% of lung cancers and is the leading cause of cancer-related deaths worldwide.[1]
- Preventing disease recurrence and limiting residual disease post-surgical resection is critical in NSCLC. Neoadjuvant therapy aims to increase survival prior to definitive local treatment and adjuvant therapy aims to eliminate residual tumor cells and decrease recurrence.[2]
  - Neoadjuvant/adjuvant treatment for early-stage/resectable NSCLC currently includes programmed cell death protein 1/programmed death-ligand 1 (PD-1/PDL-1)-targeting immunotherapy (pembrolizumab, nivolumab, atezolizumab), the tyrosine kinase inhibitor osmeritinib, and chemotherapy.[2]
- KEYNOTE-671, a phase III randomized control trial evaluated neoadjuvant pembrolizumab + chemotherapy, surgery followed by adjuvant pembrolizumab compared to neoadjuvant chemotherapy + surgery alone for patients with resectable NSCLC. It was presented at ASCO 2023 and demonstrated improved efficacy for pembrolizumab regimens versus neoadjuvant chemotherapy alone and surgery. Based on these findings, this regimen was approved by the US Food and Drug Administration (FDA) on October 16, 2023.[3,4]

OBJECTIVE

- This descriptive study assessed the preferences of United States (U.S.) oncologists' utilization and perceptions of treatment options and pembrolizumab use in patients with early-stage/resectable (Stage II, IIIA, or IIIB [N2]) NSCLC.

METHODS

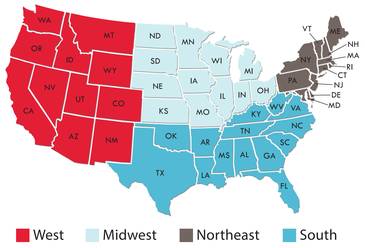
- In July 2023, U.S.-based oncologists/hematologists were invited to attend two live meetings.
- A premeeting survey was used to collect participant demographic information.
- The perceptions and reactions of these providers to recent data, including findings from the KEYNOTE-671 trial, were captured via audience response system (ARS) technology during the live meetings. Questions related to neoadjuvant and adjuvant therapy for early-stage/resectable NSCLC were presented.
- Responses were aggregated and summarized using descriptive statistics and not all participants answered each question.

RESULTS

- A total of 109 physicians attended live meetings, 52.3% identified as medical oncologists, 67.0% as community providers representing all U.S. geographical regions and 75.2% reported lung cancer among the top 3 solid tumors treated (**Table 1**).
- Prior to reviewing KEYNOTE-671 data: For a hypothetical 62-year-old male with resectable stage IIIA N2 non-squamous NSCLC, eligible for immunotherapy and cisplatin, 69.8% of respondents reported a treatment preference for neoadjuvant nivolumab + cisplatin + pemetrexed regimens (**Figure 1**).
  - Regardless of PD-L1 expression, 41% reported a baseline preference for immunotherapy for resectable NSCLC (**Figure 2**).
- After reviewing KEYNOTE-671: Providers were more likely to prescribe chemoimmunotherapy (47.4%) versus targeted therapy (40.2%) as neoadjuvant therapy for epidermal growth factor receptor (*EGFR*)-mutated NSCLC (**Figure 3**).
  - 74.5% respondents indicated being very likely to consider neoadjuvant pembrolizumab + chemotherapy, and adjuvant pembrolizumab treatment for resectable NSCLC (**Figure 4**).
- Top identified challenges to prescribing neoadjuvant chemoimmunotherapy and adjuvant immunotherapy for patients with resectable NSCLC included (**Figure 5**):
  - Understanding if patients require both neoadjuvant and adjuvant treatment (51%)
  - Identifying patients benefitting most (47%)
  - Impact of actionable mutations on outcomes (33%).

Table 1. Physician Demographics

	N=109
Practice region (n, %)	
Midwest	16 (14.7)
Northeast	26 (23.9)
South	46 (42.2)
West	21 (19.3)
Practice setting (n, %)	
Community	73 (67.0)
Non-community	31 (28.4)
Other	5 (4.6)
Primary medical specialty (n, %)	
Medical oncology	57 (52.3)
Hematology oncology	50 (45.9)
Other	2 (1.8)



RESULTS

Figure 1. Neoadjuvant Systemic Therapy Preference for Resectable Stage IIIA N2 non-Squamous NSCLC
Question: Given a 62-year-old male with resectable stage IIIA N2 NSCLC who is cisplatin and ICI eligible, which of the following would be your preferred neoadjuvant systemic therapy? (N=96)

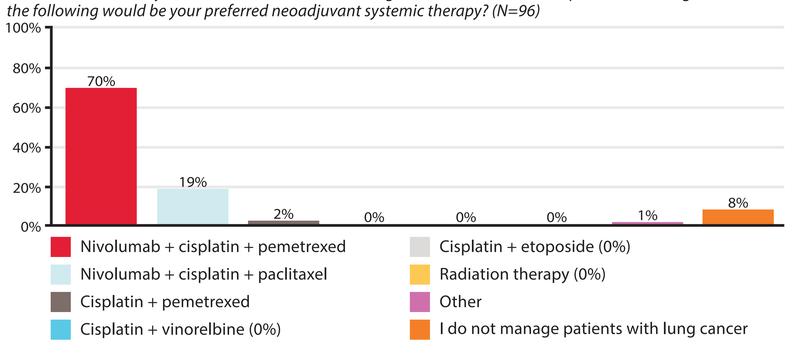


Figure 2. Relevance of Programmed Death-Ligand 1 (PD-L1) Status and Immunotherapy Selection
Question: When selecting neoadjuvant treatment for patients with resectable NSCLC, do you typically wait for the PD-L1 status results prior to making treatment decisions? (N=95)

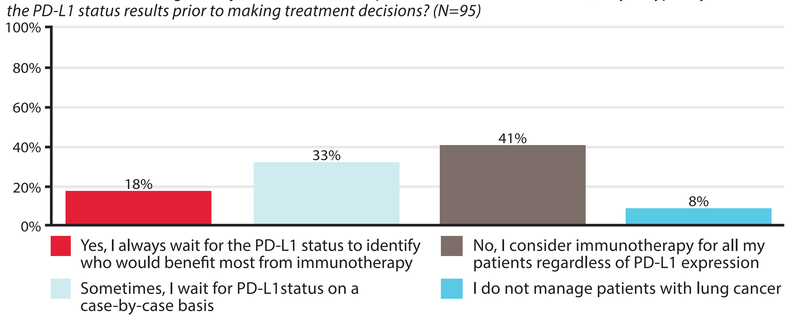
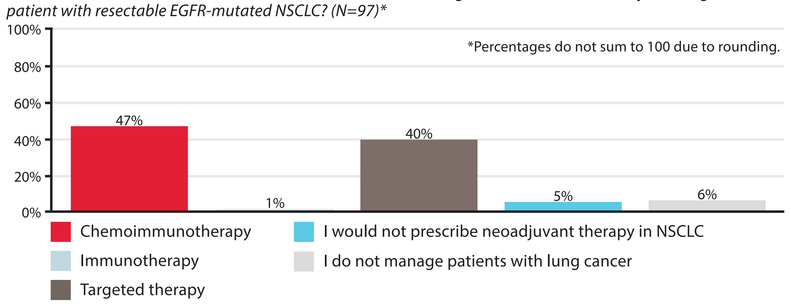
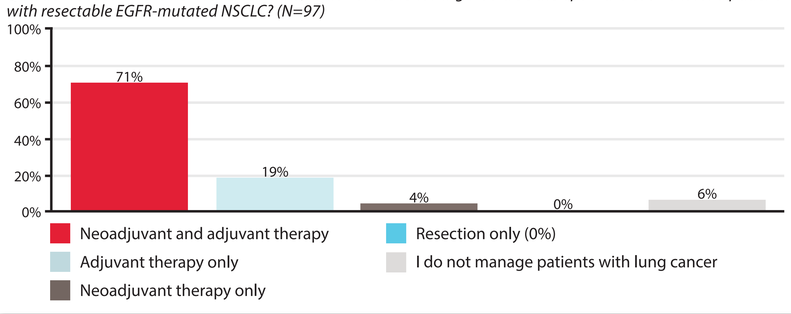


Figure 3. Neoadjuvant & Adjuvant Treatment Preference Following Review of KEYNOTE-671
*Question: Based on the KEYNOTE-671 data, which of the following would be the best neoadjuvant regimen for a patient with resectable EGFR-mutated NSCLC? (N=97)**



Question: Based on the KEYNOTE-671 data, which of the following would be the optimal treatment for a patient with resectable EGFR-mutated NSCLC? (N=97)



RESULTS

Figure 4. Perception of KEYNOTE-671 Regimen Usage
Question: After reviewing the KEYNOTE-671 study, how likely are you to consider neoadjuvant pembrolizumab + chemotherapy, surgery, and adjuvant pembrolizumab for patients with resectable NSCLC? (N=97)

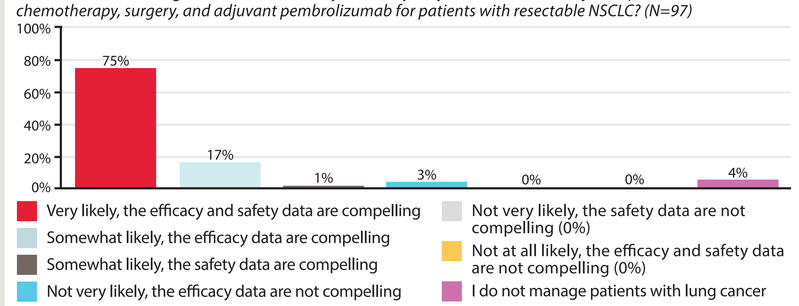
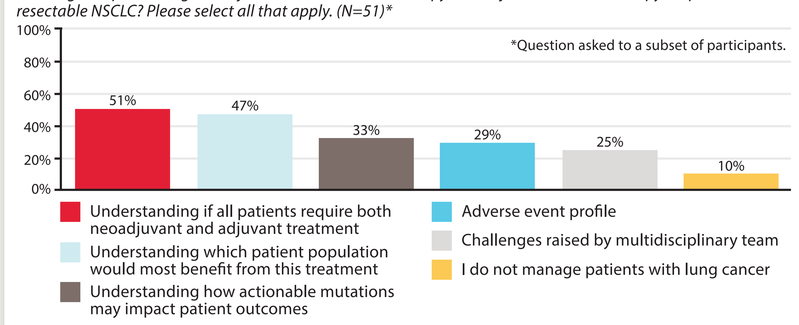


Figure 5. Challenges to Perioperative and Adjuvant Immunotherapy Treatment Selection
*Question: After reviewing the KEYNOTE-671 study, which of the following do you identify as the greatest challenges to prescribing neoadjuvant chemoimmunotherapy and adjuvant immunotherapy for patients with resectable NSCLC? Please select all that apply. (N=51)**



CONCLUSIONS

- Overall, our study showed that oncologists have a strong preference toward immunotherapy agents for the treatment of early-stage NSCLC, with most favoring a nivolumab + chemotherapy regimen for neoadjuvant therapy. Physicians will often prescribe immunotherapy regardless of PD-L1 status.
- After reviewing the KEYNOTE-671, physicians demonstrated interest in immunotherapy use in both neoadjuvant and adjuvant settings and 47.4% indicated a preference for perioperative immunotherapy over targeted therapy (40.2%) in patients with early-stage/resectable NSCLC.
- Understanding treatment optimization, differentiating between competing targeted and immunotherapy treatment options, adverse event management, and impact of mutations on patient outcomes are emerging as critical treatment considerations in the selection of neoadjuvant chemoimmunotherapy and adjuvant immunotherapy for patients with resectable NSCLC.
- These findings highlight the need for well-conducted RWE studies which may help further elucidate optimal neoadjuvant and adjuvant therapy selection in early-stage/resectable NSCLC.

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