

3426. REAL-WORLD TREATMENT PATTERNS AMONG ADULT PATIENTS WITH ADVANCED NON-SMALL CELL LUNG CANCER IN THE US

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INTRODUCTION

With the rapid evolution of the treatment landscape for non-small cell lung cancer (NSCLC), this study aims to assess the real-world treatment patterns and shed light on how quickly new guidelines are integrated into clinical practice.

METHODOLOGY

- A descriptive cohort study was conducted using electronic health records from an NSCLC registry.
- Inclusion criteria: 1) had at least one documented diagnosis of advanced (stage IIIB, IIIC, and IV) NSCLC between Jan 2015 and Dec 2021; 2) with known age and gender; 3) age ≥18 years at diagnosis date; 4) received lung cancer treatment following advanced NSCLC dx (index date).
- Exclusion criteria: 1) enrolled in clinical trial; 2) had a diagnosis of other primary cancer.
- Baseline characteristics and treatment patterns were described.
- Sankey diagrams were used to depict treatment patterns.

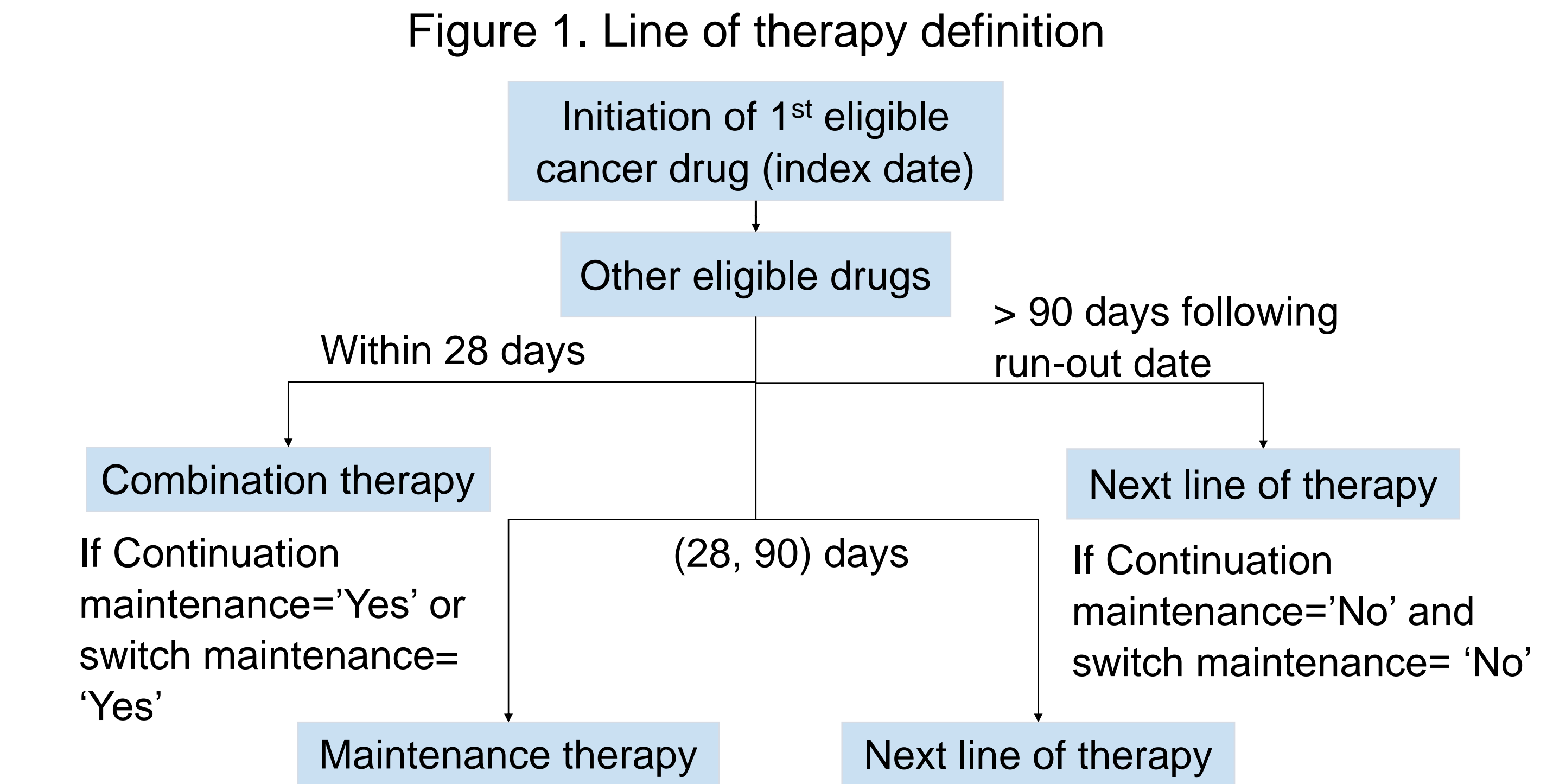


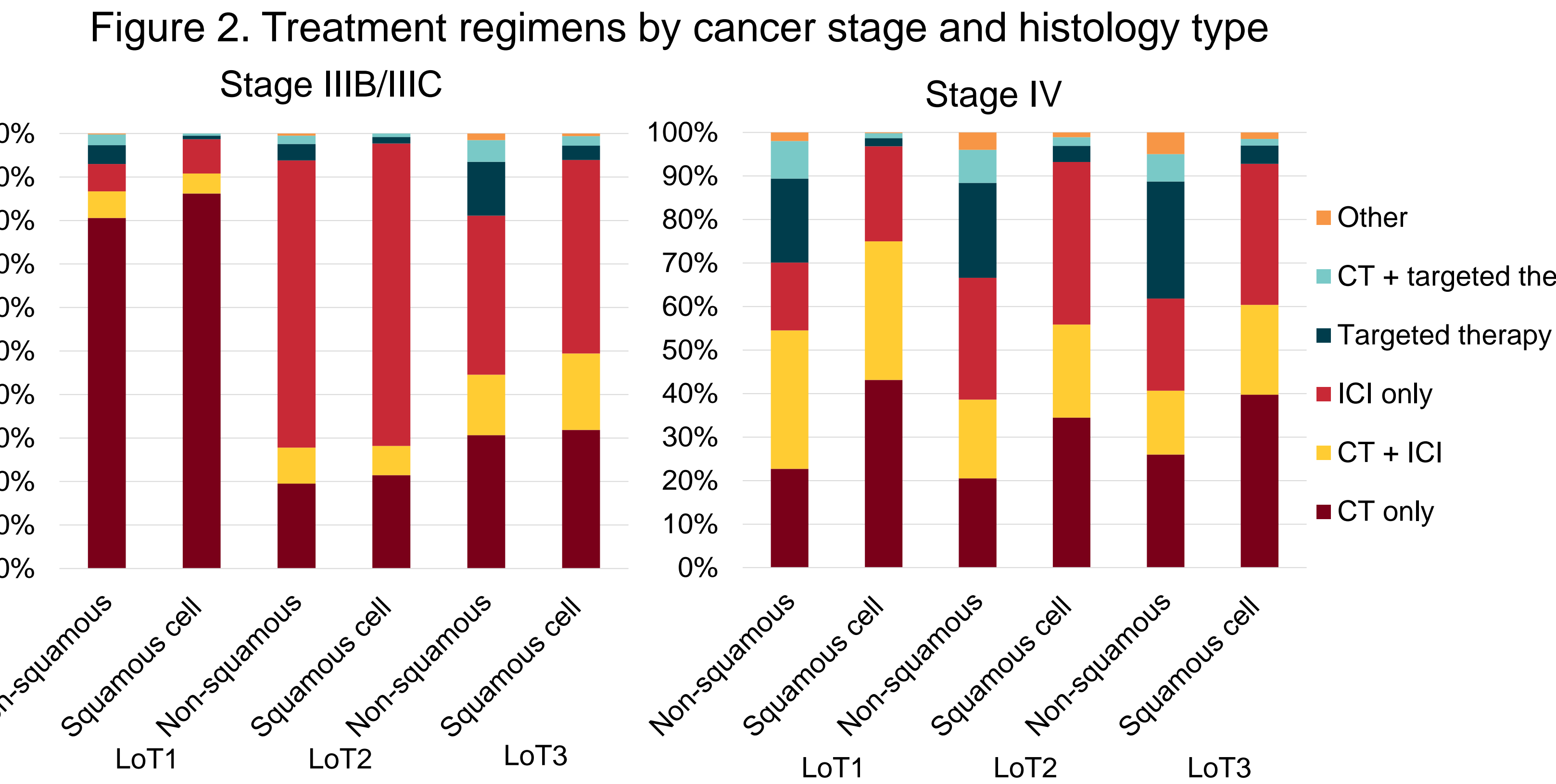
Table 1. Key definitions of line of therapy modules in sensitivity analyses			
LoT module	Primary analysis	Sensitivity analysis 1	Sensitivity analysis 2
Line regimen window	≤28 days after the initiation date of the 1 st drug		
Line advancement	1)New drug not included in the 1L regimen and not continuation maintenance/switch maintenance 2)Discontinuation of all drugs included in the 1L regimen 3)Tumor progression		
Gap in the therapy window	90 days following the run-out date	60 days following the run-out date	120 days following the run-out date
Run-out date	Fill date + days of supply - 1		

RESULTS

- 8,723 patients met inclusion criteria.
- The mean age was 66.7 (SD=±10.0) years, and median age was 67 [60, 74] years; 52.7% were male.
 - 13.4% of patients were receiving care from academic centers, 78.7% from community hospitals, 8.0% for whom care site was unknown.
 - 51.6% of all patients received second line of therapy (LoT2); the five most common LoT2 were nivolumab, durvalumab, pembrolizumab, docetaxel + ramucirumab, and carboplatin + paclitaxel.

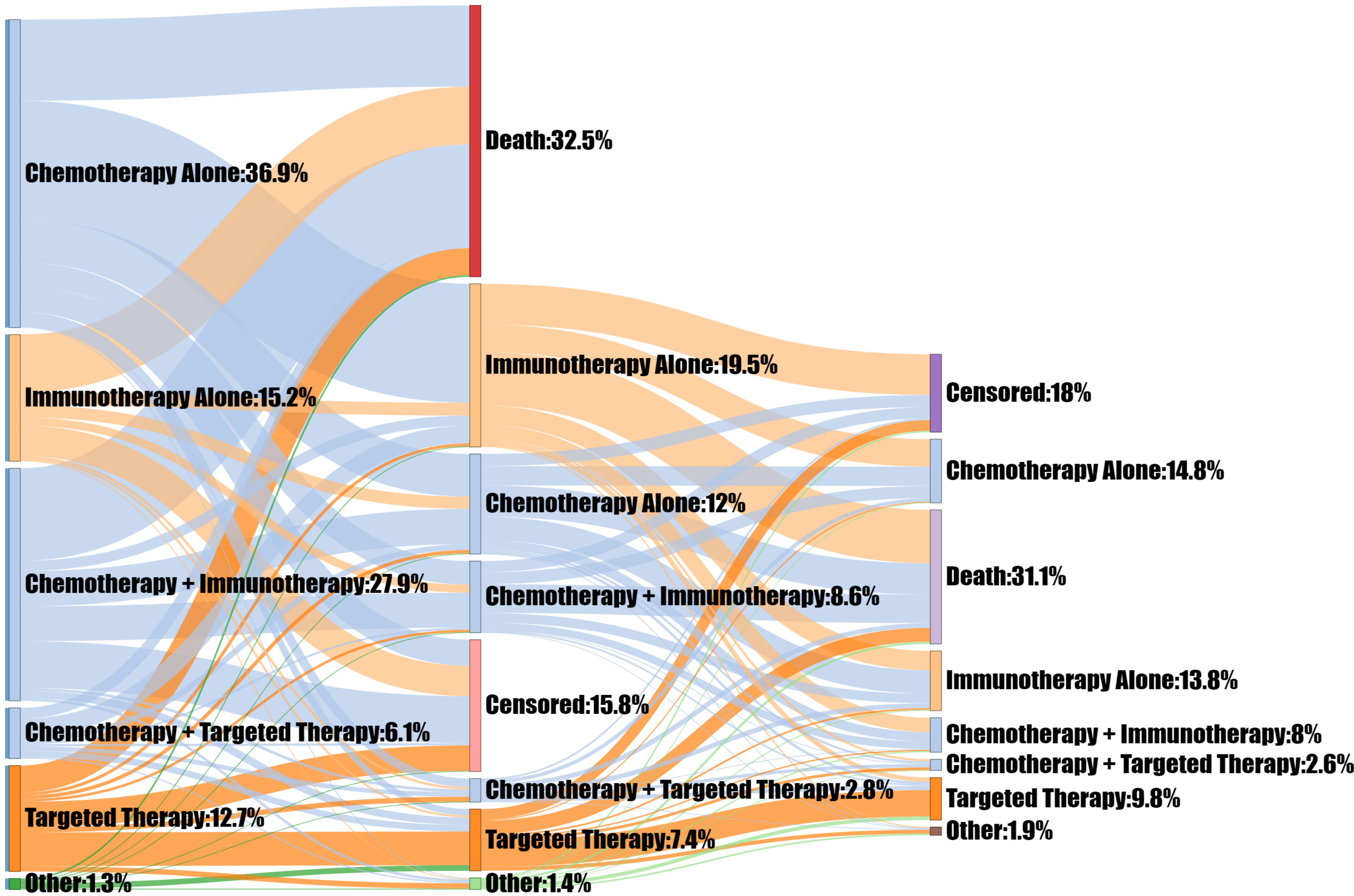
- 26.4% of all patients received third-line therapy (LoT3), the five most common LoT3 were nivolumab, docetaxel, docetaxel + ramucirumab, osimertinib, and pembrolizumab.
- There were 22 patients with documentation of NSCLC with no identified guideline recommended line of therapy.
- The results remained consistent across sensitivity analyses

DEMOGRAPHICS AND CLINICAL CHARACTERISTICS		
Demographics	Stage IIIB/IIIC (n=1,412)	Stage IV (n=7,311)
Age, mean (SD)	66.7 (9.4)	66.7 (10.1)
Male	768 (54.4%)	3,825 (52.3%)
Race		
Asian	37 (2.6%)	246 (3.4%)
Black or African American	190 (13.5%)	870 (11.9%)
White	1,091 (77.3%)	5,608 (76.7%)
Other or unknown	94 (6.7%)	587 (8.0%)
Histology type		
Adenocarcinoma	605 (42.9%)	5,047 (69.0%)
Squamous cell carcinoma	637 (45.1%)	1,317 (18.0%)
Other or unknown	170 (12.0%)	947 (13.0%)
Smoking status		
Ever smoked	1,300 (92.1%)	6,083 (83.2%)
Never smoked	94 (6.7%)	1,124 (15.4%)
Unknown	18 (1.3%)	104 (1.4%)
ECOG PS		
0-1	1,071 (75.8%)	4,827 (66.0%)
2+	211 (14.9%)	1,617 (22.1%)
Unknown	130 (9.2%)	867 (11.9%)



Stage 3		Stage 4	
First-line regimens (n=1,410)	n (%)	First-line regimens (n=7,336)	n (%)
carboplatin+paclitaxel	813 (57.7%)	carboplatin+pembrolizumab+pemetrexed	1675 (22.8%)
cisplatin	121 (8.6%)	pembrolizumab	1000 (13.6%)
carboplatin+pemetrexed	107 (7.6%)	carboplatin+paclitaxel	851 (11.6%)
cisplatin+pemetrexed	60 (4.3%)	carboplatin+pemetrexed	708 (9.7%)
pembrolizumab	49 (3.5%)	carboplatin+paclitaxel+pembrolizumab	501 (6.8%)
carboplatin+pembrolizumab+pemetrexed	38 (2.7%)	osimertinib	390 (5.3%)
durvalumab	31 (2.2%)	bevacizumab+carboplatin+pemetrexed	273 (3.7%)
carboplatin+paclitaxel+pembrolizumab	30 (2.1%)	erlotinib	233 (3.2%)
nivolumab	18 (1.3%)	nivolumab	120 (1.6%)
carboplatin	12 (0.9%)	bevacizumab+carboplatin+paclitaxel	118 (1.6%)

Figure 3. Sankey diagram of treatment patterns among advanced NSCLC patients



CONCLUSIONS

- Traditional platinum-based chemotherapy was the most common regimen in LoT1
- Immune check point inhibitor (ICI) monotherapy and ICI combinations were the most common therapy in LoT2 and LoT3.
- Targeted therapies have been used more often among stage IV patients.
- The growing use of ICIs indicated that new evidence was rapidly adopted among NSCLC patients.
- While most treatments align with current guidelines, instances of nonadherence were observed.

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