

INTRODUCTION

- The phase III LUNAR trial showed improved survival with Tumor Treating Fields therapy plus standard systemic therapy in platinum-refractory NSCLC.
- Real-world outcomes in contemporary patients previously treated with platinum-based chemotherapy and immune checkpoint inhibitors remain limited.
- This study evaluated real-world outcomes, sequencing, usage, and toxicity of TTFields therapy in advanced NSCLC.

METHODS

- Retrospective single-institution study of patients with advanced NSCLC treated with TTFields therapy at 150 kHz after platinum-based therapy between 2018 and 2026.
- Baseline demographics, disease characteristics, prior systemic therapies, concurrent systemic therapy, TTFields treatment line, device usage, and toxicities were collected.
- Patients were stratified according to timing of TTFields initiation:
 - * First post-platinum line
 - * Later-line therapy
- TTFields device usage was calculated as monthly average usage
- PFS/OS were calculated from TTFields initiation using Kaplan-Meier analysis and compared with log-rank testing.

DISCUSSION AND CONCLUSION

Actionable Takeaway Message

- TTFields therapy was feasible and well tolerated after platinum and prior ICI exposure. Earlier post-platinum use may improve outcomes and warrants further study.

Future Direction for Research

- Prospective studies are needed to define optimal TTFields timing, integration with modern systemic therapies, patient selection, device usage thresholds, and effects on toxicity and quality of life.

Baseline and Treatment Characteristics

Characteristic	N=16
Age, median (IQR), years	73 (66–82)
Male sex, n (%)	10 (63)
Adenocarcinoma, n (%)	11 (69)
PD-L1 positive, n (%)	11 (69)
ECOG PS ≤2, n (%)	15 (94)
Brain metastases, n (%)	3 (19)
Liver metastases, n (%)	5 (31)
Prior platinum chemotherapy, n (%)	16 (100)
Prior ICI exposure, n (%)	15 (94)
First post-platinum TTFields, n (%)	6 (38)
Later-line TTFields, n (%)	10 (63)
ICI-based concurrent therapy, n (%)	12 (75)
Docetaxel-based therapy, n (%)	4 (25)
TTFields cycles, median (range)	5 (0.5–15)
TTFields usage, median %/day	36

RESULTS

Cohort
N = 16

Prior ICI
94%

Median PFS
11.8 MO

Median OS
19.9 MO

Figure 1. Swimmer Plot of Treatment Sequencing and Clinical Outcomes

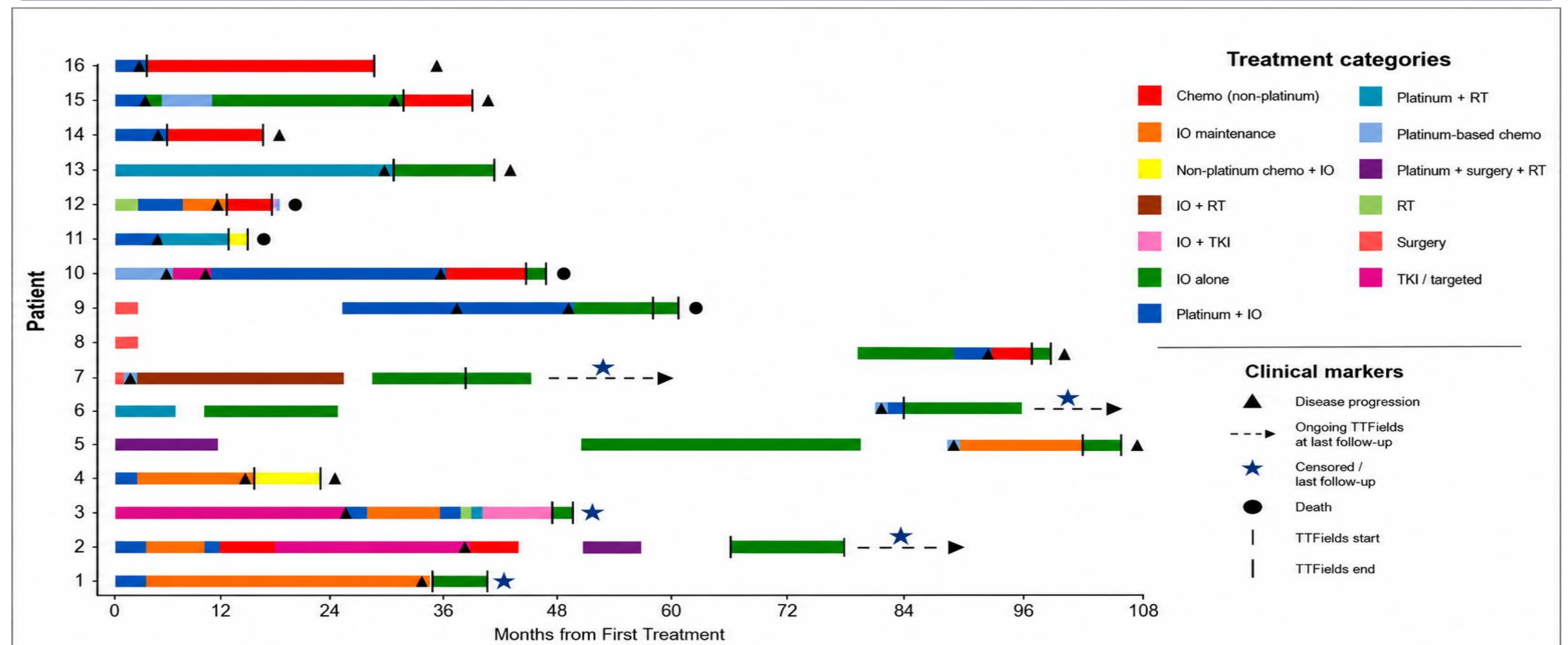


Figure 2. Average Daily TTFields Usage by Patients

