

Efficacy and Safety of Amivantamab-Osimertinib in Advanced EGFR-Mutant NSCLC: A Multicenter Retrospective Study

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Introduction

- Limited options after EGFR-TKI resistance
- Aimantamab + lazertinib demonstrated activity in refractory advanced EGFR mutant¹
- Osimertinib has demonstrated similar activity to lazertinib and may be more accessible in certain regions
- This is a real-word study of amivantamab + osimertinib in pretreated EGFR-mutant NSCLC

Methods

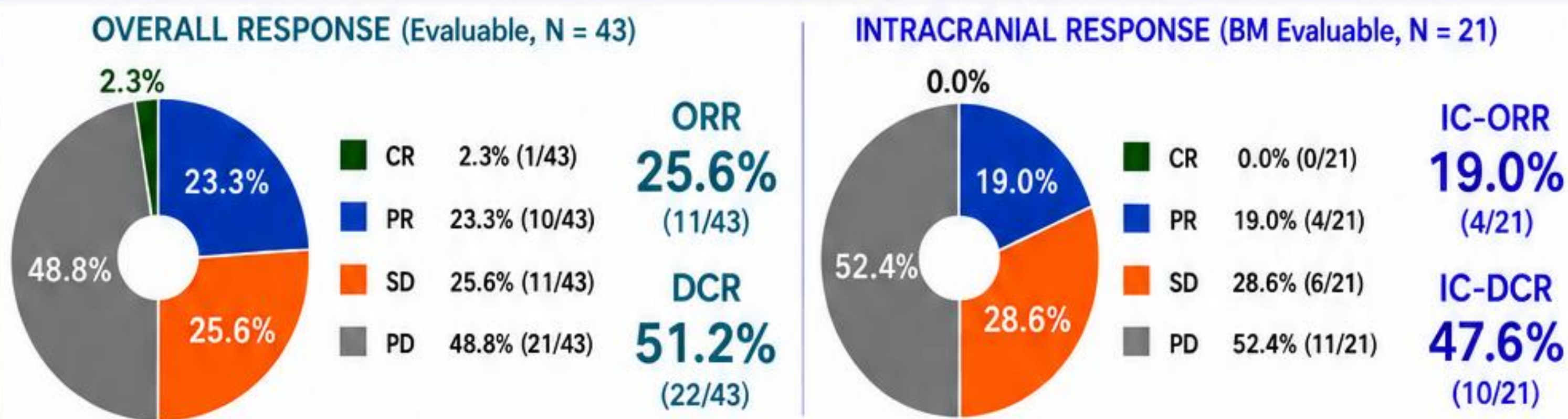
- Multicenter retrospective study across 8 centers in Hong Kong, Taiwan, Singapore, and the United States (Aug 2021 – Apr 2026)
- Median follow-up: 13.1 months
- Included patients with metastatic EGFR-mutant NSCLC treated with amivantamab + osimertinib
- Efficacy endpoints: ORR, PFS, OS and intracranial response
- Safety endpoints: TRAEs, dose interruption, and dose reduction

PATIENT CHARACTERISTICS (N=50)

Age, median (range)	57 (37–79)	BRAIN METASTASES AT BASELINE	N (%)
SEX	N (%)	Yes	31 (62.0)
Female	32 (64.0)	No	19 (38.0)
Male	18 (36.0)	PRIOR LINES OF THERAPY	N (%)
ECOG PERFORMANCE STATUS	N (%)	Median line (range)	2 (1–8)
0–1	46 (92.0)	2nd line	6 (14.0)
≥2	4 (8.0)	3rd line	14 (30.0)
SMOKING STATUS	N (%)	≥4th line	27 (56.0)
Never	42 (84.0)	PRIOR CHEMOTHERAPY BEFORE AMI-OSIM	N (%)
Former/current	8 (16.0)	Yes	40 (80.0)
EGFR MUTATION SUBTYPE	N (%)	No	10 (20.0)
Exon 19 deletion	24 (48.0)	PREVIOUSLY TREATED WITH 3RD GEN EGFR TKI	N (%)
L858R	24 (48.0)	Yes	50 (100.0)
Non-specified	1 (2.0)	No	0 (0.0)
Exon 19 del + T790M mutation	1 (2.0)		

Data are presented as n (%) unless otherwise specified.
ECOG, Eastern Cooperative Oncology Group; EGFR, epidermal growth factor receptor;
ami-osim, amivantamab-osimertinib.

RESPONSE RATES



RESPONSE BY LINE OF THERAPY (Evaluable)

2–3 LINE (n = 22)

ORR
30.0%
(6/20)

DCR
50.0%
(10/20)

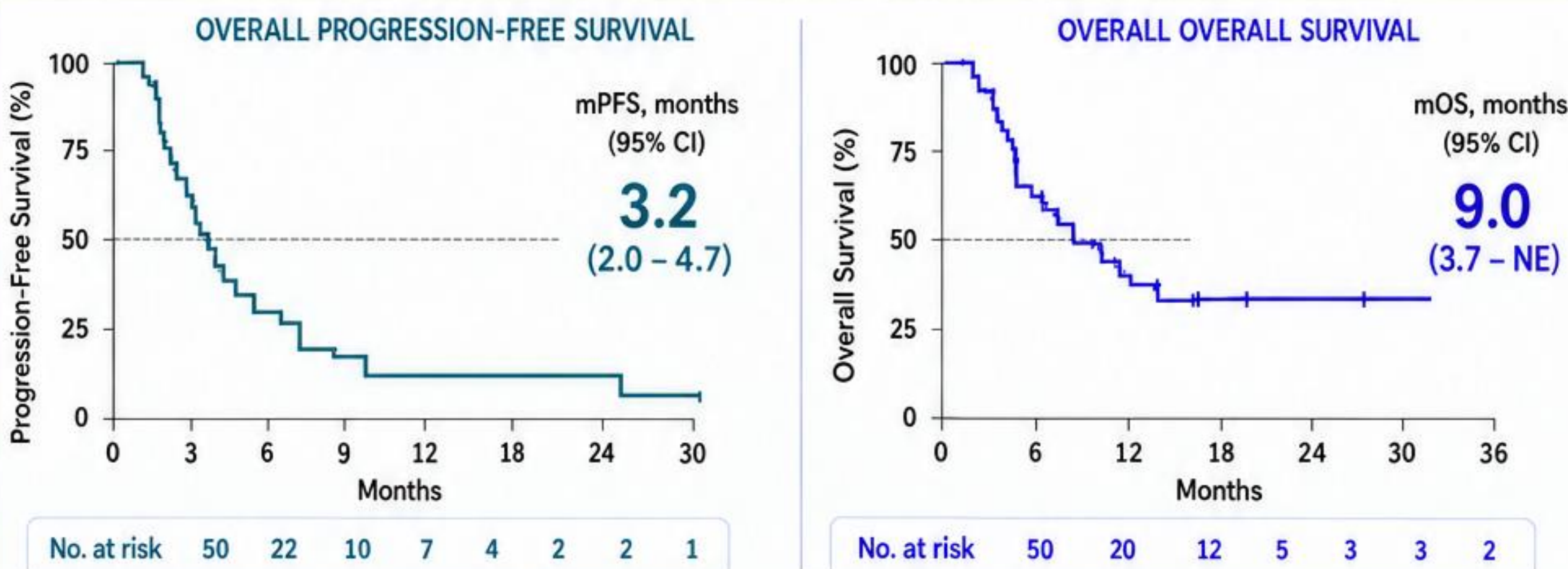
VS

≥4 LINE (n = 28)

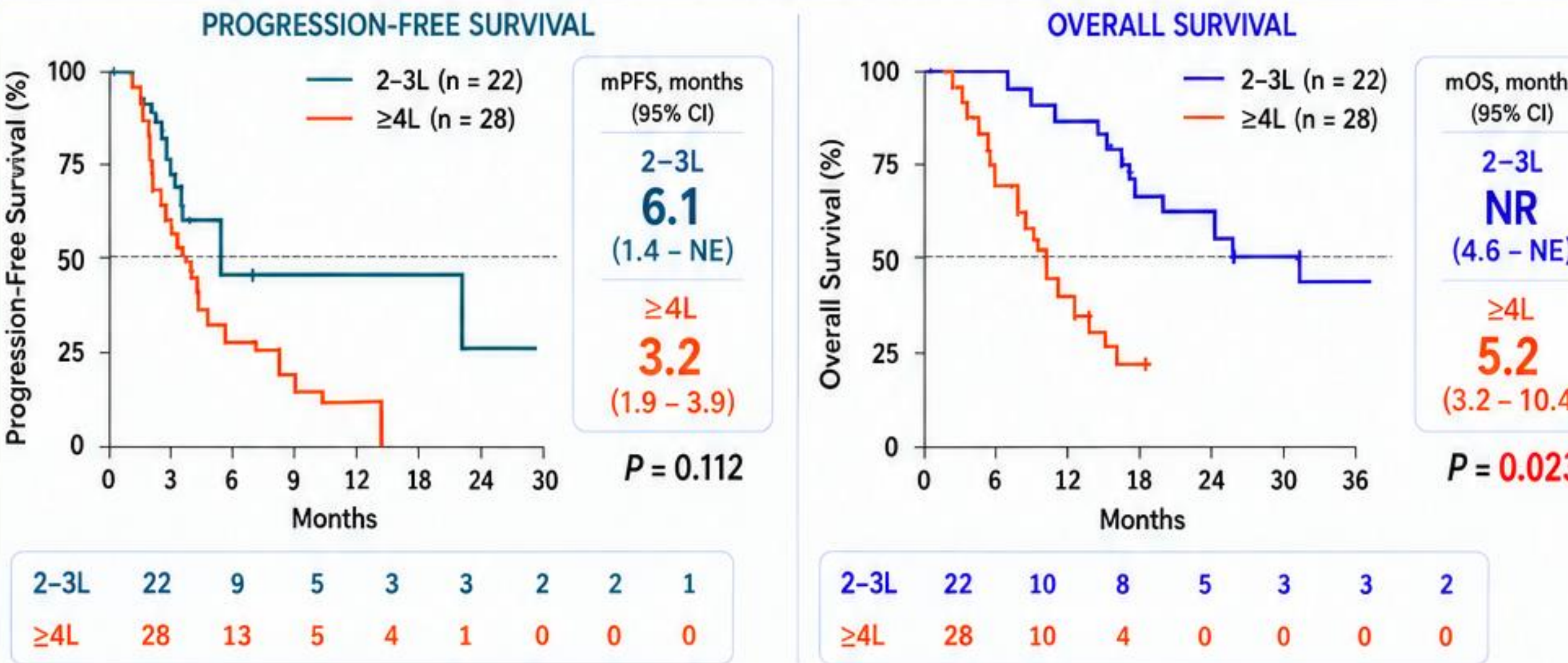
ORR
21.7%
(5/23)

DCR
52.2%
(12/23)

SURVIVAL OUTCOMES (ALL PATIENTS, N = 50)



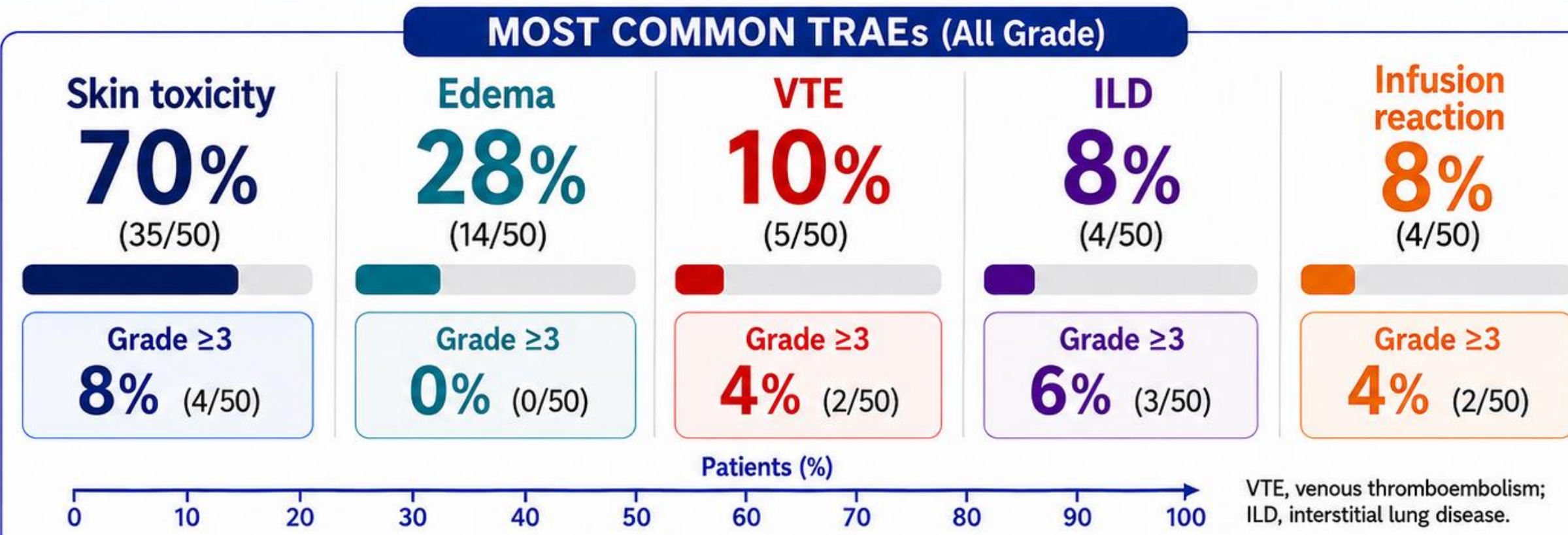
SURVIVAL BY LINE OF THERAPY



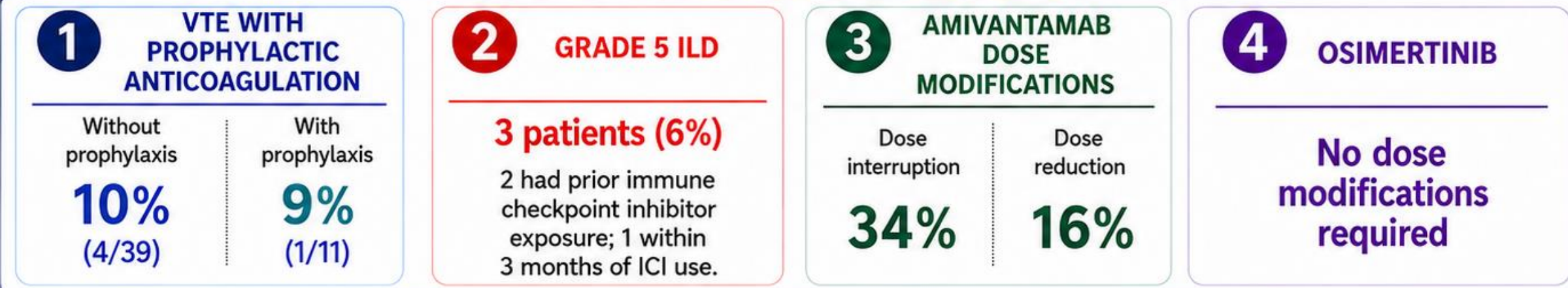
BM, brain metastases; CR, complete response; PR, partial response;
SD, stable disease; PD, progressive disease; NE, not estimable; NR, not reached.

TREATMENT-RELATED ADVERSE EVENTS

Safety population (N = 50)



OTHER SAFETY FINDINGS



Vigilant monitoring for ILD and VTE is required.

Conclusion

- Amivantamab + osimertinib demonstrated meaningful real-world activity in heavily pretreated EGFR-mutant NSCLC
- Earlier-line use (2–3L) was associated with improved survival outcomes
- Potential salvage option where lazertinib is unavailable
- Side effect profile similar to amivantamab + lazertinib, and close monitoring of ILD and VTE is required

Limitation

- Retrospective design with potential selection and information bias
- Small sample size and heterogenous treatment schedules
- Subgroup findings were exploratory and may be confounded by differences in prior treatment exposure

Reference: ¹ Besse B, et al. J Thorac Oncol. 2025;20:651–664.

AI tools were used solely to assist with the design and generation of figures for this poster. All study data, analyses, interpretation, and scientific content were independently developed and verified by the authors.