



ORR
85.4%

Median PFS
25.4 m

Median OS
39.8 m

Median TTD
30.5 m

Grade ≥3 adverse events
29.1%

BACKGROUND

Osimertinib was the preferred first-line therapy for EGFR-mutated metastatic NSCLC. Studies such as FLAURA2 and MARIPOSA have shown improved outcomes with combination strategies, but at the cost of increased toxicity. Identifying subgroups that may still benefit from osimertinib monotherapy remains clinically relevant.

METHODS

- Single-center retrospective study
- Advanced EGFR-mutated NSCLC treated with first-line osimertinib (2018–2025)
- Clinical, molecular, and outcome data collected
- Endpoints: PFS, OS, and time to treatment discontinuation (TTD)
- Kaplan–Meier estimates and multivariable Cox regression

BASELINE CHARACTERISTICS

N	55
Median age	68 years (33 – 90 years)
Female	56.4%
ECOG ≤1	92.7%
Oligometastatic disease	52.7%
Brain metastases	23.6%
Bone metastases	50.9%
Liver metastases	20.0%
Exon 19 deletion	67.3%
L858R	23.6%
TP53 co-mutations	18/32 (56.3%)
ctDNA positive	28/35 (80%)

KEY TAKE-HOME MESSAGE

In this real-world cohort, first-line osimertinib monotherapy achieved durable benefit with a favorable toxicity profile. TTD exceeded PFS, suggesting that some patients may continue to derive clinically meaningful benefit beyond progression.

OSIMERTINIB MONOTHERAPY REMAINS A VALID FIRST-LINE OPTION IN A SUBSET OF PATIENTS

RESULTS

- Objective response rate (ORR): 85.4%
- Grade ≥3 adverse events: 29.1%
- Dose reductions: 30.9%
- Progression occurred in 43.6%
- Among progressing patients, 83.3% had oligoprogression (≤5 sites)
- 62.5% of patients with oligoprogression received ablative therapy while continuing osimertinib
- Rebiopsy identified actionable resistance mechanisms in 4/8 patients
- Only 42.4% of patients who progressed received second-line treatment

MULTIVARIABLE ANALYSIS

Outcome	Main findings
PFS	ECOG was the only independent prognostic factor
OS	ECOG and absence of bone metastases were independent prognostic factors
TTD	A better baseline ECOG predicted longer treatment duration; TP53 co-mutations and bone metastases were linked to earlier discontinuation

CNS metastases, liver metastases and ctDNA positivity were not significantly associated with any outcome

DISCUSSION AND CONCLUSION

First-line osimertinib monotherapy showed high activity and prolonged survival outcomes. TTD exceeded PFS, suggesting ongoing benefit beyond radiological progression in some patients, particularly when oligoprogression was managed with local therapy.

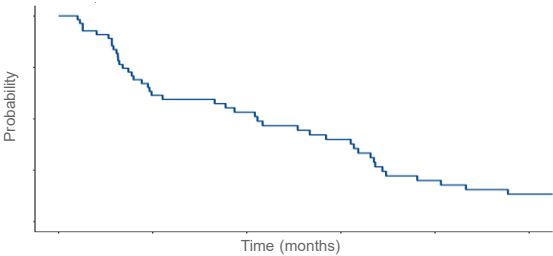
These findings support that osimertinib monotherapy remains an option for some patients.

REFERENCES & AI DISCLOSURE

FLAURA2 (Planchard D et al. N Engl J Med, 2023). MARIPOSA (Cho BC et al. N Engl J Med, 2024) | AI Use Disclosure: Generative AI (ChatGPT, OpenAI) was used to assist with language editing and poster structuring. All scientific content, interpretation, and final approval were performed by the authors.

SURVIVAL OUTCOMES

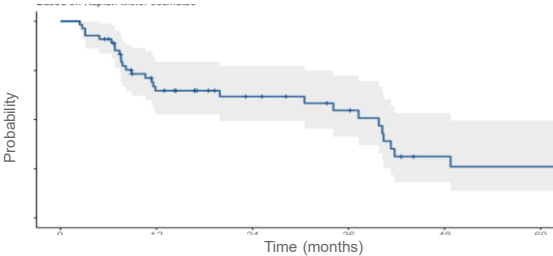
1) Progression-Free Survival



Median PFS
25.4 months

95% CI, 15.4–50.4

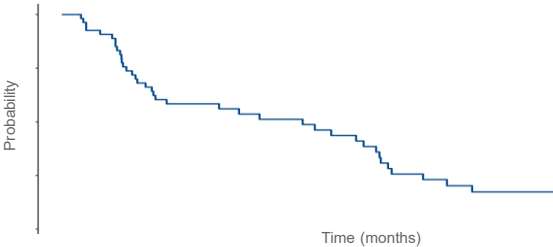
2) Overall Survival



Median OS
39.8 months

95% CI, 30.5–64.4

3) Time to Treatment Discontinuation



Median TTD
30.5 months

95% CI, 11.9–40.4