

Figure S1. Kaplan-Meier survival analyses in subgroup of patients with EGFR exon 19 deletions with first- or second-generation EGFR-tyrosine kinase inhibitors treatment. (A) Kaplan-Meier estimate for progression-free survival (11.1 months vs. 7.5 months; HR=2.75; 95% CI, 1.12-6.74; P=0.027); (B) Kaplan-Meier estimate for overall survival (NR vs. 32.8 months; HR=6.62; 95% CI, 1.69-26.01; P=0.007). NR, not reached; HR, hazard ratio.

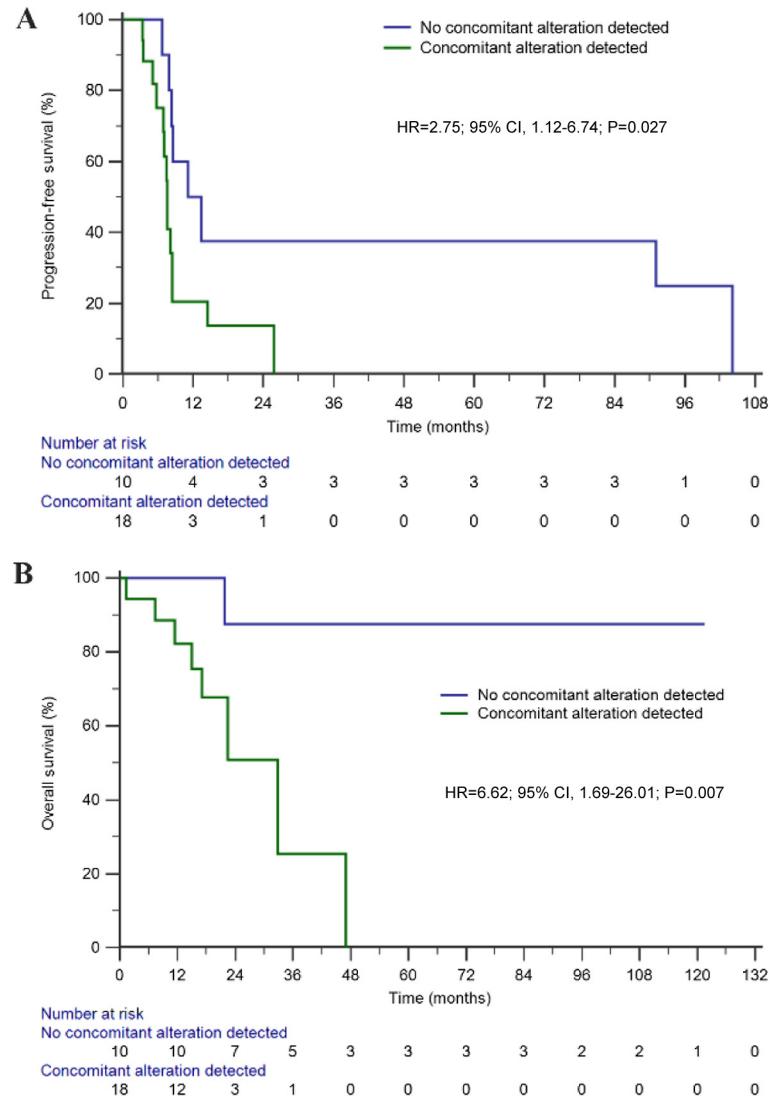


Figure S2. Kaplan-Meier survival analyses in subgroup of patients with EGFR exon 21 mutations with first- or second-generation EGFR-tyrosine kinase inhibitors treatment. (A) Kaplan-Meier estimate for progression-free survival (6.0 months vs. 5.2 months; HR=1.35; 95% CI, 0.32-5.62; P=0.69); (B) Kaplan-Meier estimate for overall survival (NR vs. NR; P=0.38). NR, not reached; HR, hazard ratio.

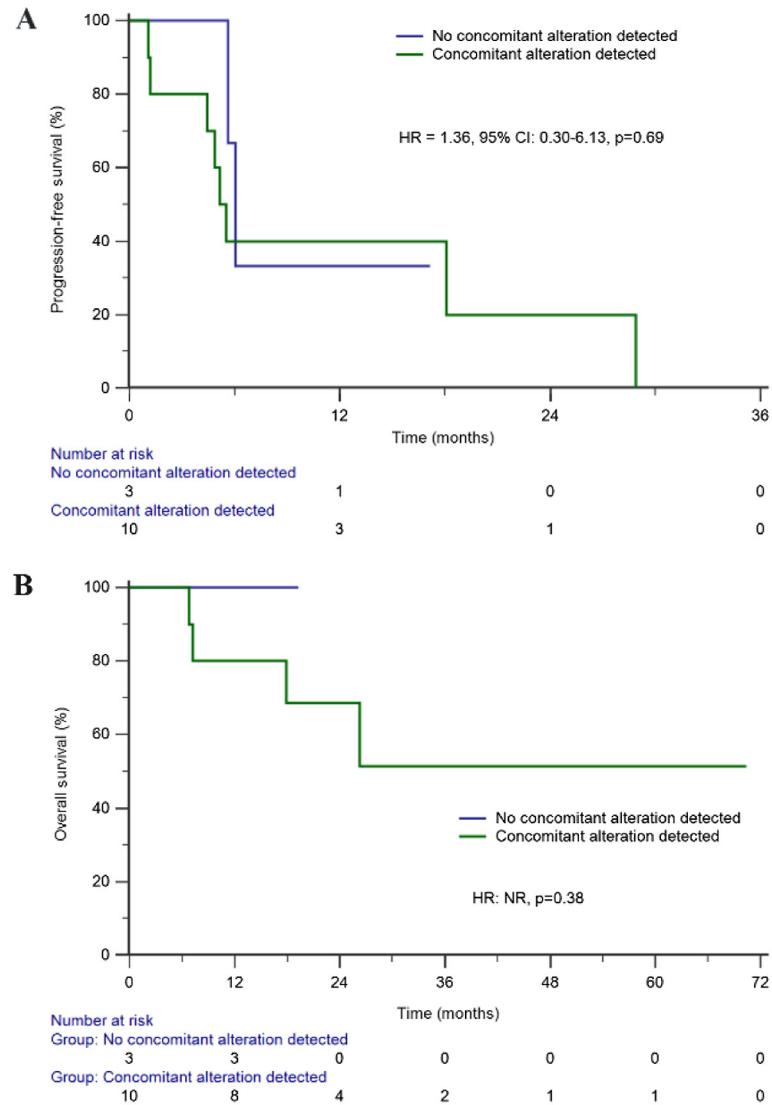


Table SI. Characteristics by genetic alternation status for patients with advanced non-small cell lung cancer receiving first-line chemotherapy.

Characteristic	Patients, n (%)			P-value
	Gene alternations detected (n=52)	Gene alternation not detected (n=12)	Total (n=64)	
Median age, years (range)	57.0 (27.0-74.0)	56.0 (31.0-74.0)	57.0 (27.0-47.0)	0.77
Sex				0.83
Male	33 (63.5)	8 (66.7)	41 (64.1)	
Female	19 (36.5)	4 (33.3)	23 (35.9)	
ECOG performance status				0.61
0-1	47 (90.4)	10 (83.3)	57 (89.1)	
2	5 (9.6)	2 (16.7)	7 (10.9)	
Smoking status				0.33
Yes	29 (55.8)	9 (75.0)	38 (59.4)	
No	23 (44.2)	3 (25.0)	26 (40.6)	
Histological type				0.21
Non-squamous carcinoma	48 (92.3)	9 (75.0)	57 (89.1)	
Squamous carcinoma	3 (5.8)	2 (16.7)	5 (7.8)	
NOS	1 (1.9)	1 (8.3)	2 (3.1)	
Clinical stage				0.10
IIIB	5 (9.6)	4 (33.3)	9 (14.1)	
IVA	21 (40.4)	3 (25.0)	24 (37.5)	
IVB	26 (50.0)	5 (41.7)	31 (48.4)	
CNS metastasis				0.73
Yes	41 (78.8)	10 (83.3)	51 (79.7)	
No	11 (21.2)	2 (16.7)	13 (20.3)	
Chemotherapy regimen				0.61
Gemcitabine + Platinum	5 (9.6)	1 (8.3)	6 (9.4)	
Taxane + Platinum	7 (13.5)	3 (25.0)	10 (15.6)	
Pemetrexed + Platinum	40 (76.9)	8 (66.7)	48 (75.0)	
Previous anticancer regimens for advanced disease				0.48
0	35 (67.3)	10 (83.3)	45 (70.3)	
≥1	17 (32.7)	2 (16.7)	19 (29.7)	

ECOG, Eastern Cooperative Oncology Group; NOS, not otherwise specified; CNS, central nervous system.

Table SII. Characteristics by genetic concomitant alternation status for patients with EGFR-mutant advanced non-small cell lung cancer receiving EGFR tyrosine kinase inhibitors.

Characteristic	Patients, n (%)			P-value
	Concomitant alternations detected (n=28)	Concomitant alternation not detected (n=13)	Total, n (%) (n=41)	
Median age, years (range)	62.0 (29.0-79.0)	53.0 (32.0-66.0)	60.0 (29.0-79.0)	0.05
Sex				0.07
Male	17 (60.7)	4 (30.8)	21 (51.2)	
Female	11 (39.3)	9 (69.2)	20 (48.8)	
ECOG performance status				-
0-1	26 (92.9)	13 (100.0)	39 (95.1)	
2	2 (7.1)	0 (0.0)	2 (4.9)	
Smoking status				0.22
Yes	12 (42.9)	3 (23.1)	15 (36.6)	
No	16 (57.1)	10 (76.9)	26 (63.4)	
Histological type				-
Non-squamous carcinoma	26 (92.9)	13 (100.0)	39 (95.1)	
Squamous carcinoma	1 (3.6)	0 (0.0)	1 (2.4)	
NOS	1 (3.6)	0 (0.0)	1 (2.4)	
Clinical stage				0.29
IIIB	4 (14.3)	0 (0.0)	4 (9.8)	
IVA	8 (28.6)	3 (23.1)	11 (26.8)	
IVB	16 (57.1)	10 (76.9)	26 (63.4)	
EGFR status				0.49
Exon 19 deletion	18 (64.3)	10 (76.9)	28 (68.3)	
Exon 21 mutation	10 (35.7)	3 (23.1)	13 (31.7)	
CNS metastasis				0.73
Yes	9 (32.1)	5 (38.5)	14 (34.1)	
No	19 (67.9)	8 (61.5)	27 (65.9)	
Type of TKI				-
Erlotinib	0 (0.0)	1 (7.7)	1 (2.4)	
Gefitinib	5 (17.9)	5 (38.5)	10 (24.4)	
Afatinib	2 (7.1)	0 (0.0)	2 (4.9)	
Icotinib	21 (75.0)	7 (53.8)	28 (68.3)	
Previous anticancer regimens for advanced disease				0.15
0	22 (78.6)	7 (53.8)	29 (70.7)	
≥1	6 (21.4)	6 (46.2)	12 (29.3)	

EGFR, epidermal growth factor receptor; ECOG, Eastern Cooperative Oncology Group; NOS, not otherwise specified; TKI, tyrosine kinase inhibitor.

Table SIII. Characteristics by genetic concomitant alternation status for patients with T790M-mutant non-small cell lung cancer receiving osimertinib.

Characteristic	Patients, n (%)			P-value
	Concomitant alternation detected (n=8)	Concomitant alternation not detected (n=13)	Total, n (%) (n=21)	
Median age, years (range)	62.0 (29.0-80.0)	58.0 (34.0-75.0)	60.0 (29.0-80.0)	0.85
Sex				0.67
Men	4 (50.0)	5 (38.5)	9 (42.9)	
Women	4 (50.0)	8 (61.5)	12 (57.1)	
ECOG performance status				0.62
0-1	6 (75.0)	11 (84.6)	17 (81.0)	
2	2 (25.0)	2 (15.4)	4 (19.0)	
Smoking status				0.65
Yes	4 (50.0)	4 (30.8)	8 (38.1)	
No	4 (50.0)	9 (69.2)	13 (61.9)	
Histological type				-
Non-squamous carcinoma	7 (87.5)	13 (100.0)	20 (95.2)	
Squamous carcinoma	1 (12.5)	0 (0.0)	1 (4.8)	
Clinical stage				-
IIIB	1 (12.5)	0 (0.0)	1 (4.7)	
IVA	0 (0.0)	3 (23.1)	3 (14.3)	
IVB	7 (87.5)	10 (76.9)	17 (81.0)	
Co-occurring EGFR mutation				0.35
Exon 19 deletion	4 (50.0)	10 (76.9)	14 (66.7)	
Exon 21 mutation	4 (50.0)	3 (23.1)	7 (33.3)	
CNS metastasis				0.86
Yes	4 (50.0)	7 (53.8)	14 (34.1)	
No	4 (50.0)	6 (46.2)	27 (65.9)	

EGFR, epidermal growth factor receptor; ECOG, Eastern Cooperative Oncology Group; CNS, central nervous system.