# Supplementary Materials: Neutrophil-to-Lymphocyte Ratio is a Predictive Biomarker in Patients with Epidermal Growth Factor Receptor (EGFR) Mutated Advanced Non-small Cell Lung Cancer (NSCLC) Treated with Tyrosine Kinase Inhibitor (TKI) Therapy
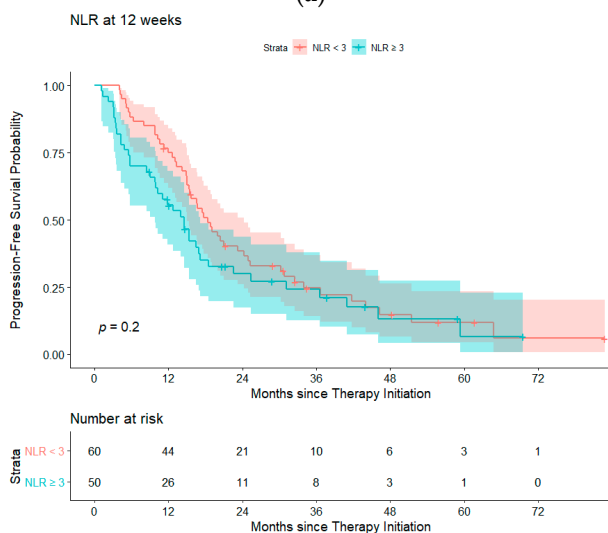
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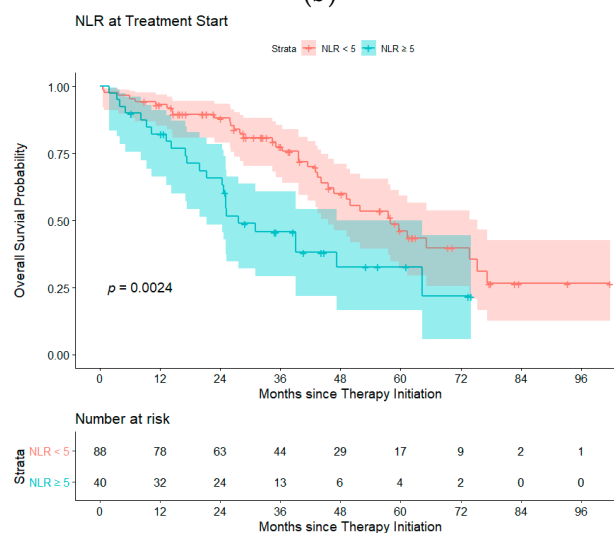
(a)

(b)

(c)

(d)

(**e**)

(**f**)
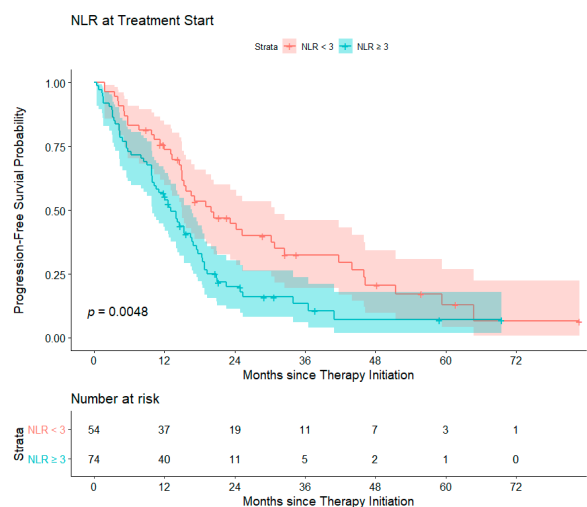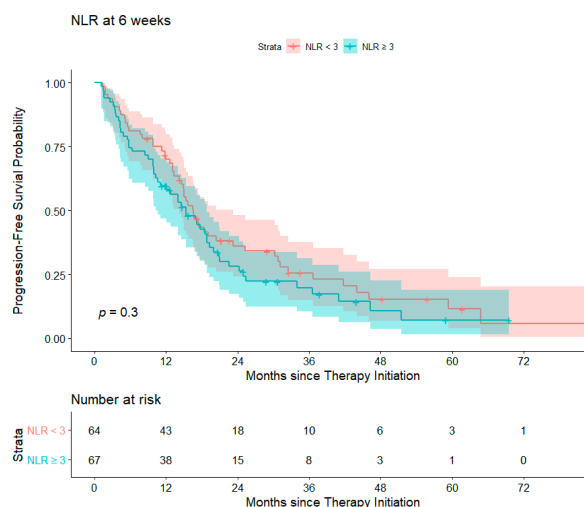
**Figure S1.** Progression free survival probability for NLR < 3 (red) compared to NLR ≥ 3 (blue) at (**a**) treatment start, (**b**) 6 weeks of therapy and (**c**) 12 weeks of therapy. Overall survival probability for NLR < 3 compared to NLR ≥ 3 at (**d**) treatment start, (**e**) 6 weeks of therapy and (**f**) 12 weeks of therapy.
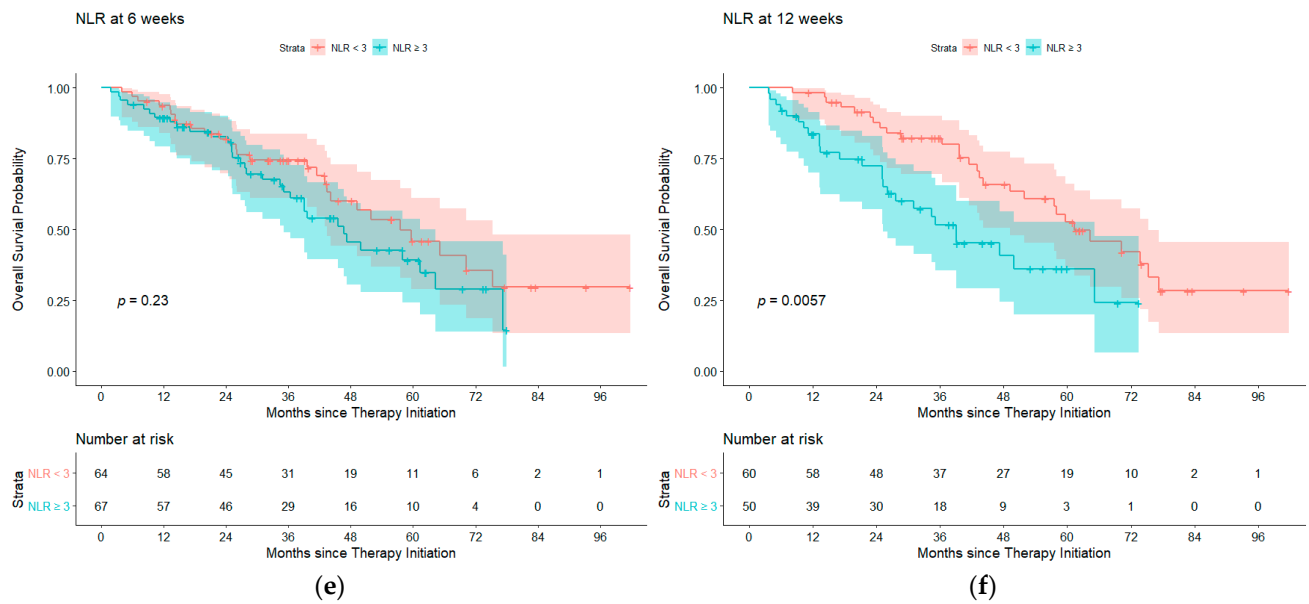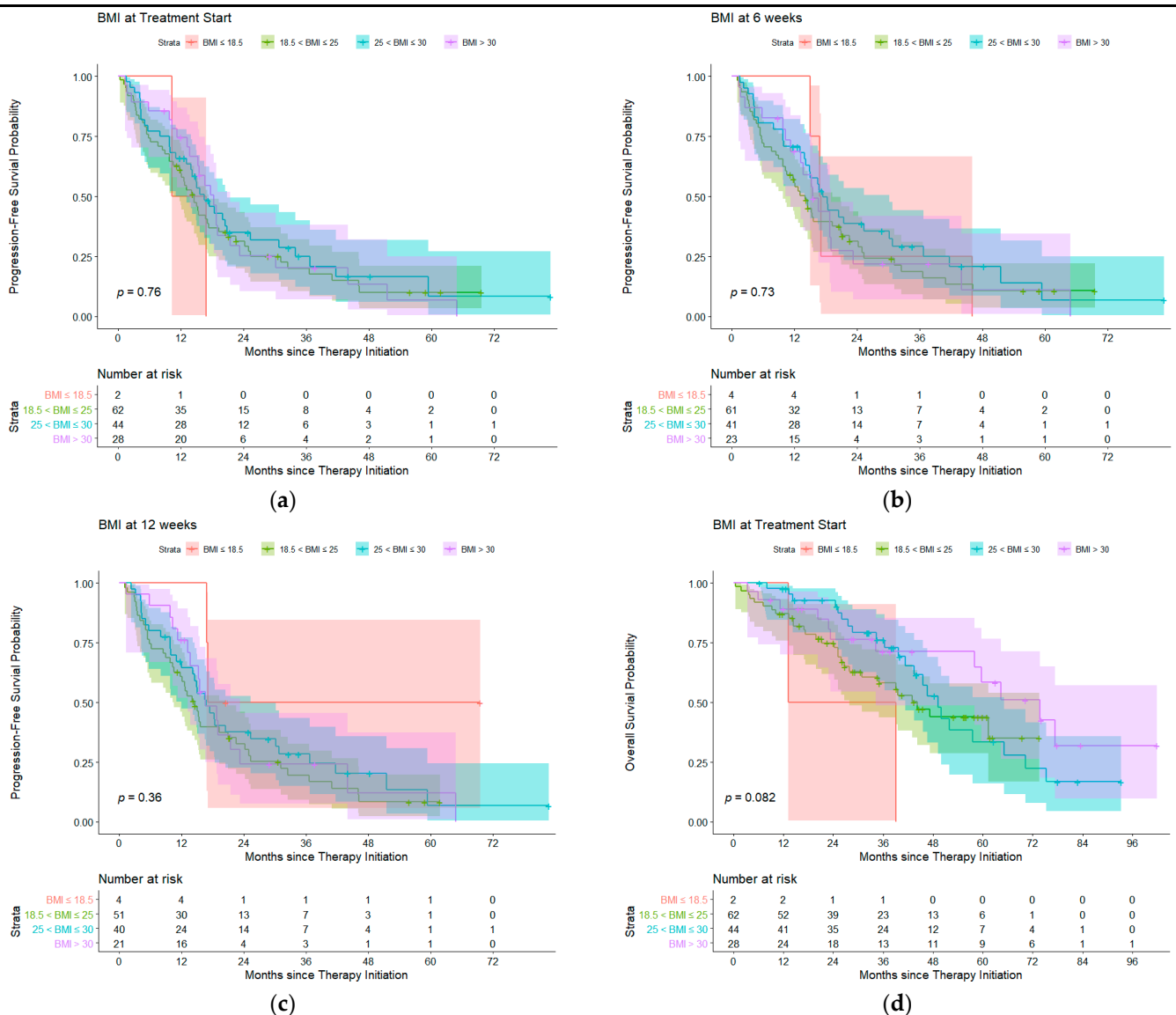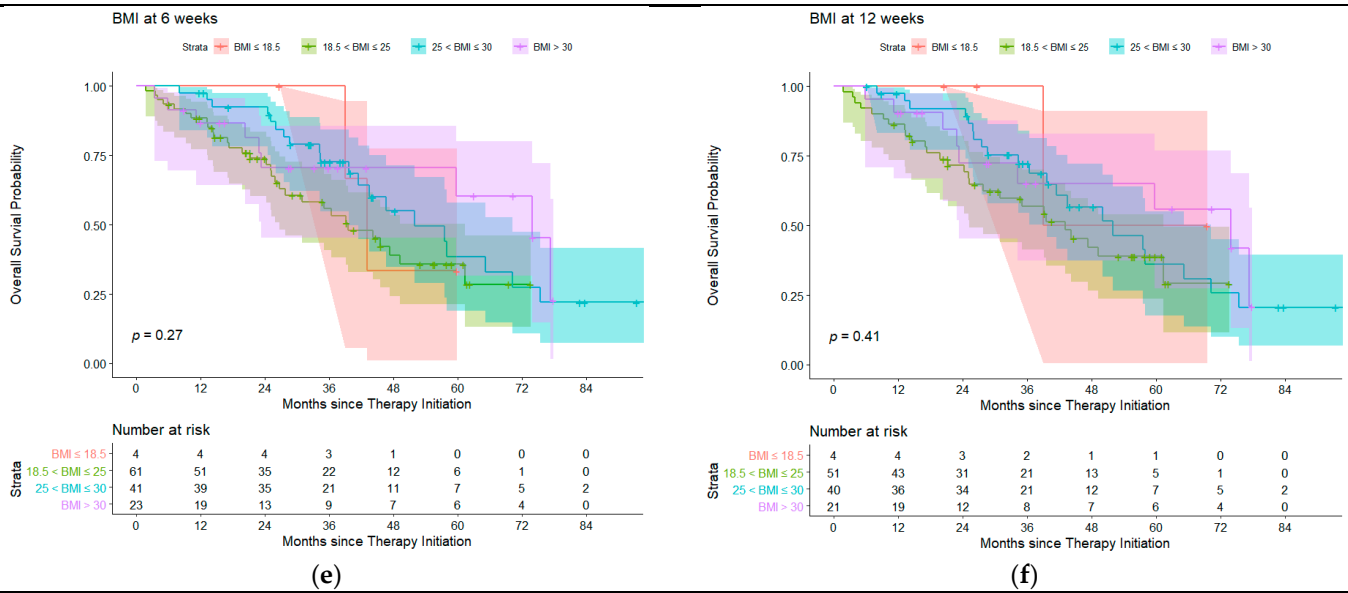


(**a**)

(**b**)

(**c**)

(**d**)

(e)  (f)

**Figure S2.** Progression free survival probability for BMI ≤ 18.5 (red), > 18.5 to ≤ 25 (green), > 25 to ≤ 30 (blue) and > 30 (purple) at **(a)** treatment start, **(b)** 6 weeks of therapy and **(c)** 12 weeks of therapy. Overall survival probability for BMI ≤ 18.5, > 18.5 to ≤ 25, > 25 to ≤ 30 and > 30 at **(d)** treatment start, **(e)** 6 weeks of therapy and **(f)** 12 weeks of therapy.
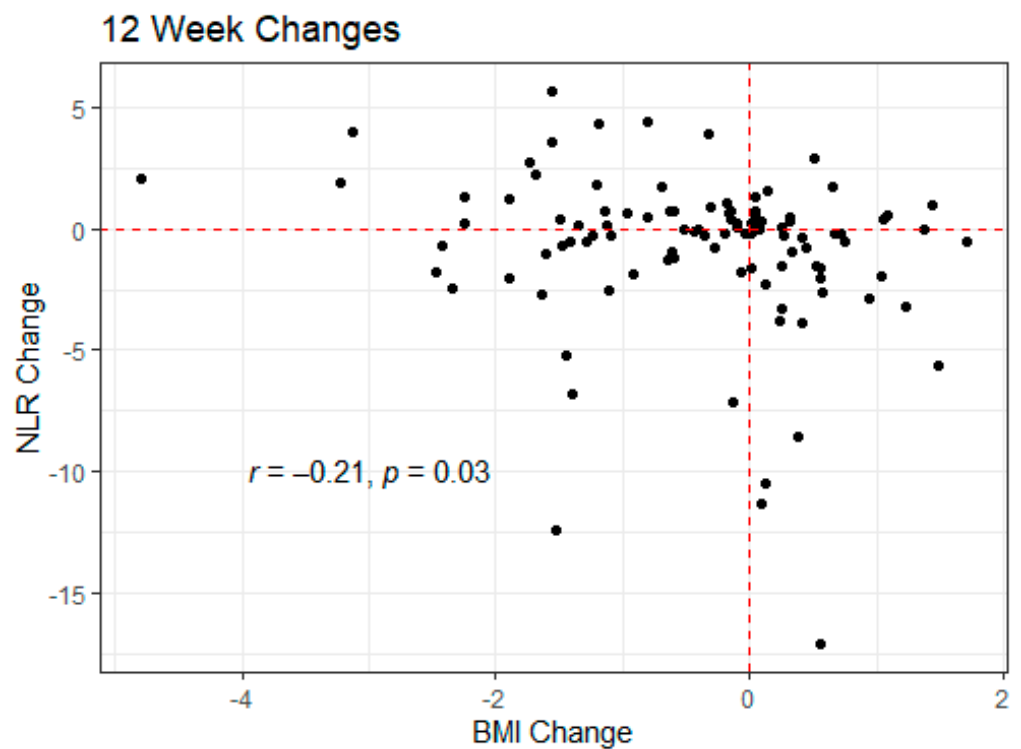


**Figure S3.** Correlation between change in BMI and change in NLR between treatment initiation and 12 weeks of therapy.

**Table S1.** Progression free survival (PFS) and overall survival (OS) for patients with NLR ≥ 3 and < 3 at therapy start, 6 weeks and 12 weeks after beginning treatment.

| Outcome | NLR | Measurement Time | *n* | Median | 95% CI | *p*-value |
|---|---|---|---|---|---|---|
| OS | < 3 | Treatment Start | 54 | 61.4 | (49.2, 75.3) | 0.0029 |
| OS | ≥ 3 | Treatment Start | 74 | 39.1 | (26.7, 47.3) | |
| OS | < 3 | 6 weeks after Treatment Start | 64 | 57.6 | (43.5, 75.3) | 0.23 |
| OS | ≥ 3 | 6 weeks after Treatment Start | 67 | 46.6 | (35.1, 64.4) | |
| OS | < 3 | 12 weeks after Treatment Start | 60 | 61.4 | (49.2, 75.3) | 0.0057 |
| OS | ≥ 3 | 12 weeks after Treatment Start | 50 | 39.1 | (25.2, 65.1) | |
| PFS | < 3 | Treatment Start | 54 | 20 | (15.0, 30.8) | 0.0048 |
| PFS | ≥ 3 | Treatment Start | 74 | 13.1 | (9.9, 16.7) | |
| PFS | < 3 | 6 weeks after Treatment Start | 64 | 16.6 | (14.3, 23.3) | 0.3 |
| PFS | ≥ 3 | 6 weeks after Treatment Start | 67 | 15.3 | (10.3, 18.8) | |
| PFS | < 3 | 12 weeks after Treatment Start | 60 | 18.4 | (15.0, 24.3) | 0.2 |
| PFS | ≥ 3 | 12 weeks after Treatment Start | 50 | 14.5 | (9.8, 17.2) | |

**Table S2.** Progression free survival (PFS) and overall survival (OS) for patients with BMI ≤ 18.5, > 18.5 to ≤ 25, > 25 to ≤ 30 and > 30 at treatment start, 6 weeks after therapy and 12 weeks after therapy and OS at progression for patients with BMI ≤ 18.5, > 18.5 to ≤ 25, > 25 to ≤ 30 and > 30.

| Outcome | BMI | Measurement Time | N | Median | 95% CI | *p*-value |
|---|---|---|---|---|---|---|
| OS | ≤ 18.5 | Treatment start | 2 | 26.1 | (13.2, N/A) | 0.082 |
| OS | > 18.5 to ≤ 25 | Treatment start | 62 | 44.2 | (27.9, N/A) | |
| OS | > 25 to ≤ 30 | Treatment start | 44 | 49.2 | (41.4, 65.1) | |
| OS | > 30 | Treatment start | 28 | 73.8 | (34.2, N/A) | |
| OS | ≤ 18.5 | 6 weeks after treatment start | 4 | 43.0 | (39.1, N/A) | 0.27 |
| OS | > 18.5 to ≤ 25 | 6 weeks after treatment start | 61 | 39.6 | (26.7, 61.4) | |
| OS | > 25 to ≤ 30 | 6 weeks after treatment start | 41 | 51.9 | (39.6, 70.2) | |
| OS | > 30 | 6 weeks after treatment start | 23 | 73.8 | (23.3, N/A) | |
| OS | ≤ 18.5 | 12 weeks after treatment start | 4 | 39.1 | (39.1, N/A) | 0.41 |
| OS | > 18.5 to ≤ 25 | 12 weeks after treatment start | 51 | 43.0 | (25.2, 61.4) | |
| OS | > 25 to ≤ 30 | 12 weeks after treatment start | 40 | 51.9 | (39.6, 70.2) | |
| OS | > 30 | 12 weeks after treatment start | 21 | 73.8 | (23.3, N/A) | |
| PFS | ≤ 18.5 | Treatment start | 2 | 13.6 | (10.3, N/A) | 0.76 |
| PFS | > 18.5 to ≤ 25 | Treatment start | 62 | 14.5 | (10.5, 17.4) | |
| PFS | > 25 to ≤ 30 | Treatment start | 44 | 16.5 | (11.1, 20.9) | |
| PFS | > 30 | Treatment start | 28 | 18.4 | (13.3, 21.5) | |
| PFS | ≤ 18.5 | 6 weeks after treatment start | 4 | 17.0 | (15.0, N/A) | 0.73 |
| PFS | > 18.5 to ≤ 25 | 6 weeks after treatment start | 61 | 14.0 | (9.9, 19.3) | |
| PFS | > 25 to ≤ 30 | 6 weeks after treatment start | 41 | 17.5 | (14.0, 30.2) | |
| PFS | > 30 | 6 weeks after treatment start | 23 | 15.5 | (11.3, 19.0) | |
| PFS | ≤ 18.5 | 12 weeks after treatment start | 4 | 17.2 | (16.9, N/A) | 0.36 |
| PFS | > 18.5 to ≤ 25 | 12 weeks after treatment start | 51 | 14.5 | (10.3, 21.0) | |
| PFS | > 25 to ≤ 30 | 12 weeks after treatment start | 40 | 16.7 | (12.0, 25.3) | |
| PFS | > 30 | 12 weeks after treatment start | 21 | 16.6 | (13.3, 23.3) | |
| OS | ≤ 18.5 | Progression | 7 | 22.2 | (1.6, N/A) | 0.057 |
| OS | > 18.5 to ≤ 25 | Progression | 49 | 17.9 | (12.5, 31.9) | |
| OS | > 25 to ≤ 30 | Progression | 33 | 33.4 | (18.9, 38.9) | |
| OS | > 30 | Progression | 15 | 63.5 | (4.6, N/A) | |

**Table S3.** Change in BMI on OS and PFS.

| Outcome | Predictor | Hazard Ratio | *p*-value |
|---|---|---|---|
| OS | BMI 6-week change | 0.7813 | 0.107 |
| OS | BMI 12-week change | 0.8328 | 0.174 |
| PFS | BMI 6-week change | 0.8949 | 0.331 |
| PFS | BMI 12-week change | 0.9252 | 0.439 |
| OS after progression | BMI change at progression | 0.83711 | 0.00336 |