Retrospective Analysis of Real-World Management of EGFR-Mutated Advanced NSCLC, after 1L EGFR-TKI Treatment: US Treatment Patterns, Attrition and Survival Data

Drugs – Real World Outcomes

Jorge Nieva¹,*, Karen L. Reckamp², Danielle Potter³,†, Aliki Taylor³, Ping Sun⁴

¹ Department of Medicine, University of Southern California, Norris Comprehensive Cancer Center, Los Angeles, CA, US, ² Department of Medicine, Cedars Sinai Medical Center, Los Angeles, CA, US, ³ Global Epidemiology, Oncology Business Unit, Global Medical Affairs, AstraZeneca, Cambridge, UK, ⁴ Real World Science & Digital, AstraZeneca, Cambridge, UK

*Corresponding author:
Jorge Nieva, MD
Tel: +1 323-865-0421
Email: jorge.nieva@med.usc.edu

†Present address: CancerLinQ LLC, American Society of Clinical Oncology, Alexandria, 17 VA, US

Supplementary tables and figures

Supplementary Table 1. Overall survival for multivariable analyses

| Age at index | All, n (%) | Multivariable hazard ratio, HR (95% CI; p-value) |
|--------------|------------|-----------------------------------------------|
| 18–50        | 102 (9.9)  | -                                             |
| 51–65        | 402 (39.1) | 0.99 (0.74, 1.34; p=0.967)                     |
| 66–75        | 263 (25.6) | 1.03 (0.75, 1.45; p=0.865)                     |
| 75+          | 262 (25.5) | 1.26 (0.92, 1.74; p=0.153)                     |
| Sex          |            |                                               |
| Female       | 707 (68.7) | -                                             |
| Male | 322 (311.3) | 0.96 (0.80, 1.15; p=0.654) |
|------|--------------|-----------------------------|

### Race

| Race                          | Count (Percentage) | OR (95% CI)          |
|-------------------------------|--------------------|----------------------|
| Asian                         | 158 (15.4)         | -                    |
| Black or African American     | 112 (10.9)         | 1.41 (1.01, 1.98; p=0.046) |
| Other/unknown                 | 148 (14.4)         | 1.16 (0.83, 1.62; p=0.383) |
| White                         | 611 (59.4)         | 1.29 (0.99, 1.68; p=0.059) |

### Histology at initial diagnosis

| Histology at initial diagnosis | Count (Percentage) | OR (95% CI)          |
|-------------------------------|--------------------|----------------------|
| Adenocarcinoma                | 921 (89.5)         | -                    |
| Other/unknown                 | 108 (10.5)         | 1.07 (0.82, 1.41; p=0.610) |

### Disease stage at initial diagnosis

| Disease stage at initial diagnosis | Count (Percentage) | OR (95% CI)          |
|-----------------------------------|--------------------|----------------------|
| Early stage (I–IIIA)              | 128 (12.4)         | -                    |
| Late Stage (IIIB-IV)              | 821 (79.8)         | 1.53 (1.17, 2.00; p=0.002) |
| Unknown                           | 80 (7.8)           | 1.34 (0.90, 1.98; p=0.145) |

### ECOG performance status at index

| ECOG performance status at index | Count (Percentage) | OR (95% CI)          |
|---------------------------------|--------------------|----------------------|
| 0–1                             | 381 (37.0)         | -                    |
| 2+                              | 77 (7.5)           | 1.87 (1.38, 2.54; p<0.001) |
| Unknown                         | 571 (55.5)         | 0.72 (0.60, 0.86; p<0.001) |

### Smoking status

| Smoking status | Count (Percentage) | OR (95% CI)          |
|----------------|--------------------|----------------------|
| Current smoker | 58 (5.6)           | -                    |
| EVER SMOKER               | 288 (28.0) | 0.61   |
|--------------------------|------------|--------|
|                          |            | (1.43, 0.87; p=0.006) |
| NEVER SMOKER             | 661 (64.2) | 0.50   |
|                          |            | (0.36, 0.69; p<0.001) |
| UNKNOWN/NOT DOCUMENTED   | 22 (2.1)   | 0.55   |
|                          |            | (0.28, 1.08; p=0.081) |
| EGFR MUTATIONd           |            |        |
| exon 19 deletion         | 334 (32.5) | -      |
|                          |            |        |
| L858R                    | 120 (11.7) | 1.11   |
|                          |            | (0.83, 1.47; p=0.495) |
| OTHER MUTATION TYPE      | 22 (2.1)   | 1.49   |
|                          |            | (0.85, 2.62; p=0.164) |
| UNKNOWN/INDETERMINATE    | 553 (53.7) | 1.44   |
|                          |            | (1.19, 1.74; p<0.001) |
| FIRST-LINE THERAPY CLASS |            |        |
| AFATINIB MONOTHERAPY      | 133 (12.9) | -      |
|                          |            |        |
| ERLOTINIB MONOTHERAPY     | 792 (77.0) | 1.23   |
|                          |            | (0.94, 1.62; p=0.130) |
| GEFTINIB MONOTHERAPY      | 15 (1.5)   | 1.12   |
|                          |            | (0.55, 2.30; p=0.749) |
| OTHER EGFR-TKI-BASED THERAPY | 89 (8.6) | 1.10   |
|                          |            | (0.76, 1.59; p=0.608) |
| CNS METASTASES           |            |        |
| CNS METASTASES AT BASELINE | 325 (31.6) | -      |
| CNS METASTASES DEVELOPED LATERc | 155 (15.1) | 0.79   |
|                          |            | (0.60, 1.05; p=0.100) |
| NO CNS METASTASES REPORTED | 549 (53.4) | 0.80   |
|                          |            | (0.66, 0.96; p=0.017) |
| COHORT GROUP             |            |        |
|       | Count     |   |   |
|-------|-----------|---|---|
| ≥2015 | 510 (49.6)|   | - |
| <2015 | 519 (50.4)|   | 1.03 (0.87, 1.23; p=0.730) |

*American Indian or Alaska Native are included in the other races group; *bClosest to index date; *cAfter index or with unknown date; *dFrom the first successful EGFR test, which can be before or after index.

ECOG = European Cooperative Oncology Group; Ex19del = exon 19 deletion; IQR = interquartile range