Table SI. Pathological characteristics of patients with pulmonary adenocarcinoma who received complete resection.

| Characteristic                             | AYAs (n=61) | Older adults (n=220) | P-value |
|-------------------------------------------|-------------|----------------------|---------|
| Sex, n (%)                                |             |                      | 0.092   |
| Male                                      | 25 (41.0)   | 117 (53.2)           |         |
| Female                                    | 36 (59.0)   | 103 (46.8)           |         |
| Main microscopic pattern, n (%)           |             |                      |         |
| Lepidic                                   | 14 (23.0)   | 40 (18.2)            | 0.403   |
| Acinar                                    | 28 (45.9)   | 87 (39.5)            | 0.372   |
| Papillary                                 | 3 (4.9)     | 24 (10.9)            | 0.160   |
| Solid                                     | 15 (24.6)   | 52 (23.6)            | 0.877   |
| Micropapillary                            | 1 (1.6)     | 4 (1.8)              | NA      |
| Micropapillary ≥5%                        | 7 (11.5)    | 13 (5.9)             | 0.224   |
| T stage, n (%)                            |             |                      | 0.461   |
| T1                                        | 36 (59.0)   | 109 (49.5)           |         |
| T2                                        | 21 (34.4)   | 83 (37.7)            |         |
| T3                                        | 2 (3.3)     | 13 (5.9)             |         |
| T4                                        | 2 (3.3)     | 15 (6.8)             |         |
| N stage, n (%)                            |             |                      | 0.260   |
| N0                                        | 36 (59.0)   | 143 (65.0)           |         |
| N1                                        | 3 (4.9)     | 19 (8.6)             |         |
| N2                                        | 22 (36.1)   | 58 (26.4)            |         |
| TNM stage, n (%)                          |             |                      | 0.598   |
| I                                         | 33 (54.1)   | 119 (54.1)           |         |
| II                                        | 4 (6.6)     | 26 (11.8)            |         |
| III                                       | 22 (36.1)   | 66 (30.0)            |         |
| IV                                        | 2 (3.3)     | 9 (4.1)              |         |

All categorical variables were compared using χ² or Fisher’s exact test, as appropriate. AYAs, Adolescents and young adults; NA, not available; TNM, Tumor-Node-Metastasis.
Table SII. Grade 3-4 TRAEs following first-line systemic treatment.a

| A, Anti-EGFR for 64 AYAs and 164 older adults | YAs, n (%) | Older adults, n (%) | P-value |
|----------------------------------------------|------------|---------------------|---------|
| Total                                        | 21 (32.8)  | 45 (27.4)           | 0.421   |
| Elevated aminotransferase                    | 7 (10.9)   | 12 (7.3)            | 0.374   |
| Renal dysfunction                            | 1 (1.6)    | 3 (1.8)             | N/A     |
| Paronychia                                   | 1 (1.6)    | 0 (0.0)             | 0.281   |
| Skin rash                                    | 4 (6.3)    | 9 (5.5)             | 0.924   |
| Hypertension                                 | 0 (0.0)    | 1 (0.6)             | N/A     |
| Diarrhea                                     | 4 (6.3)    | 8 (4.9)             | 0.931   |
| Nausea and vomiting                          | 0 (0.0)    | 3 (1.8)             | 0.561   |
| Neutropenia                                  | 2 (3.1)    | 7 (4.3)             | 0.984   |
| Anemia                                       | 2 (3.1)    | 4 (2.4)             | 0.674   |

| B, Anti-ALK/ROS1 for 13 AYAs and 29 older adults | YAs, n (%) | Older adults, n (%) | P-value |
|-----------------------------------------------|------------|---------------------|---------|
| Total                                         | 3 (23.1)   | 8 (27.6)            | 0.942   |
| Neutropenia                                   | 1 (7.7)    | 2 (6.9)             | N/A     |
| Diarrhea                                      | 1 (7.7)    | 1 (3.4)             | 0.528   |
| Elevated aminotransferase                    | 1 (7.7)    | 2 (6.9)             | N/A     |
| Stomatitis                                    | 0 (0.0)    | 1 (3.4)             | N/A     |
| Anemia                                        | 0 (0.0)    | 1 (3.4)             | N/A     |
| Fatigue                                       | 0 (0.0)    | 1 (3.4)             | N/A     |

| C, Chemotherapy for 74 AYAs and 235 older adults | YAs, n (%) | Older adults, n (%) | P-value |
|-----------------------------------------------|------------|---------------------|---------|
| Total                                         | 39 (52.7)  | 156 (66.4)          | 0.033   |
| Neutropenia                                   | 11 (14.9)  | 68 (28.9)           | 0.016   |
| Thrombocytopenia                              | 4 (5.4)    | 14 (6.0)            | 0.914   |
| Nausea and vomiting                           | 5 (6.8)    | 15 (6.4)            | 0.875   |
| Fatigue                                       | 3 (4.1)    | 11 (4.7)            | 0.925   |
| Elevated aminotransferase                    | 3 (4.1)    | 12 (5.1)            | 0.954   |
| Anemia                                        | 7 (9.5)    | 31 (13.2)           | 0.394   |
| Stomatitis                                    | 0 (0.0)    | 1 (0.4)             | N/A     |
| Dizziness                                     | 0 (0.0)    | 1 (0.4)             | N/A     |
| Diarrhea                                      | 1 (1.4)    | 5 (2.1)             | N/A     |
| Condition                  | AYAs   | Older Adults | P-value |
|----------------------------|--------|--------------|---------|
| Hiccups                    | 1 (1.4)| 2 (0.9)      | 0.561   |
| Peripheral neuropathy      | 0 (0.0)| 1 (0.4)      | N/A     |
| Skin rash                  | 0 (0.0)| 1 (0.4)      | N/A     |
| Renal dysfunction          | 1 (1.4)| 8 (3.4)      | 0.603   |
| Hypokalemia                | 1 (1.4)| 1 (0.4)      | 0.422   |

*Subtypes of TRAEs per treatment type are shown for AYAs and older adults. TRAE, treatment-related adverse event; AYAs, adolescents and young adults; EGFR, epidermal growth factor receptor; ALK, anaplastic lymphoma kinase; ROS1, ROS proto-oncogene 1 receptor tyrosine kinase; NA, not available.*
Table SIII. Metastatic pattern of AYAs and older adults with lung adenocarcinoma and epidermal growth factor receptor mutation.

| Variables                  | AYAs (n=64) | Older adults (n=164) | P-value |
|---------------------------|-------------|----------------------|---------|
| Metastatic organs, n (%)  |             |                      |         |
| Bone                      | 34 (53.1)   | 74 (45.1)            | 0.277   |
| Lung                      | 32 (50.0)   | 64 (39.0)            | 0.131   |
| Pleura                    | 25 (39.1)   | 63 (38.4)            | 0.928   |
| Liver                     | 5 (7.8)     | 12 (7.3)             | 0.898   |
| Brain                     | 23 (35.9)   | 44 (26.8)            | 0.175   |
| Adrenal gland             | 9 (14.1)    | 6 (3.7)              | 0.011   |
| Others                    | 1 (1.6)     | 2 (1.2)              | N/A     |
| Number of metastatic organs, n (%) |             |                      |         |
| 0                         | 2 (3.1)     | 9 (5.5)              |         |
| 1                         | 20 (31.3)   | 71 (43.3)            |         |
| 2                         | 22 (34.4)   | 55 (33.5)            |         |
| 3                         | 17 (26.6)   | 27 (16.5)            |         |
| 4                         | 3 (4.7)     | 2 (1.2)              |         |

AYAs, adolescents and young adults; NA, not available.