| Characteristics               | Number of studies (%) | Patients (%)       |
|-------------------------------|-----------------------|--------------------|
| Total                         | 12 (100.00)           | 15,678 (100.00)    |
| Year of publication           |                       |                    |
| 2008                          | 1 (8.33)              | 134 (0.85)         |
| 2010                          | 1 (8.33)              | 99 (0.63)          |
| 2016                          | 1 (8.33)              | 10,587 (67.53)     |
| 2017                          | 2 (16.67)             | 1,304 (8.32)       |
| 2018                          | 4 (33.33)             | 1,875 (11.96)      |
| 2019                          | 1 (8.33)              | 212 (1.35)         |
| 2020                          | 2 (16.67)             | 1,467 (9.36)       |
| Number of cases               |                       |                    |
| <300                          | 4 (33.33)             | 585 (3.73)         |
| ≥300                          | 8 (66.67)             | 15,093 (96.27)     |
| Research region               |                       |                    |
| China                         | 7 (58.33)             | 4,390 (28.00)      |
| United States                 | 3 (25.00)             | 10,820 (69.01)     |
| Other                         | 2 (16.67)             | 468 (2.99)         |
| Histology type                |                       |                    |
| NSCLC                         | 4 (33.33)             | 11,222 (71.58)     |
| ADC                           | 7 (58.33)             | 4,096 (26.13)      |
| SCC                           | 1 (8.33)              | 360 (2.30)         |
| Follow-up period (month)      |                       |                    |
| <53                           | 6 (50.00)             | 12,689 (80.94)     |
| ≥53                           | 6 (50.00)             | 2,989 (19.06)      |
| Study end points              |                       |                    |
| OS                            | 11 (91.67)            | 14,702 (80.54)     |
| DFS                           | 9 (75.00)             | 3,552 (19.46)      |
| Quality score                 |                       |                    |
| <8                            | 4 (33.33)             | 12,293 (78.41)     |
| ≥8                            | 8 (66.67)             | 3,385 (21.59)      |

NSCLC, non-small cell lung cancer; ADC, adenocarcinoma; SCC, squamous cell carcinoma; OS, overall survival; DFS, disease-free survival.
### Table S3 Quality assessment of the included studies (n=12)

| No. | Author              | Representativeness of population | Nonexposed cohort | Ascertainment of exposure | Outcome not present at start of study | Appropriate confounding measurement and account | Sufficient measurement of outcomes | Completeness of follow-up | Quality score |
|-----|---------------------|---------------------------------|-------------------|---------------------------|----------------------------------------|-----------------------------------------------|----------------------------------|----------------------------|---------------|
| 1   | Morgensztern [2016] | 0                               | 1                 | 1                         | 1                                      | 1                                             | 2                                | 1                          | 7             |
| 2   | Xu [2018]           | 0                               | 1                 | 1                         | 1                                      | 1                                             | 2                                | 1                          | 8             |
| 3   | Strauss [2008]      | 0                               | 1                 | 1                         | 1                                      | 2                                             | 1                                | 2                          | 8             |
| 4   | Qian [2017]         | 0                               | 1                 | 1                         | 2                                      | 1                                             | 1                                | 1                          | 7             |
| 5   | Butts [2010]        | 0                               | 1                 | 1                         | 2                                      | 1                                             | 2                                | 2                          | 8             |
| 6   | Wang [2018]         | 0                               | 1                 | 1                         | 1                                      | 2                                             | 1                                | 1                          | 7             |
| 7   | Wang [2019]         | 0                               | 1                 | 1                         | 2                                      | 1                                             | 2                                | 2                          | 8             |
| 8   | Chen [2020]         | 0                               | 1                 | 1                         | 2                                      | 1                                             | 1                                | 2                          | 8             |
| 9   | Jang [2017]         | 0                               | 1                 | 1                         | 2                                      | 1                                             | 1                                | 1                          | 7             |
| 10  | Ito [2020]          | 0                               | 1                 | 1                         | 2                                      | 1                                             | 2                                | 2                          | 8             |
| 11  | Cao [2018]          | 0                               | 1                 | 1                         | 2                                      | 1                                             | 2                                | 2                          | 8             |
| 12  | Chen [2018]         | 0                               | 1                 | 1                         | 2                                      | 1                                             | 2                                | 2                          | 8             |

### Table S4 The publication bias assessment with different tests for OS and DFS

| Publication bias | Begg's P value | Egger's P value |
|------------------|----------------|-----------------|
| OS               | 0.436          | 0.379           |
| DFS              | 1.000          | 0.481           |

DFS, disease-free survival; OS, overall survival.
Figure S1 Literature Search of Eligible Studies.

| subgroup and study | HR (95% CI) |
|--------------------|-------------|
| < 33 months        |             |
| Xu, J. 2019        | 0.56 (0.34, 0.90) |
| Wang, Y. 2019      | 0.95 (0.51, 1.78) |
| Jang, H. 2017      | 0.38 (0.22, 0.66) |
| Cao, S. 2018       | 0.56 (0.31, 1.03) |
| Chen, T. 2018      | 0.61 (0.21, 1.77) |
| Subgroup, IV ($\tau^2 = 0.0\%$, $p = 0.480$) | 0.50 (0.35, 0.65) |
| ≥33 months         |             |
| Morgensztern, D. 2016 | 0.66 (0.61, 0.72) |
| Strauss, G. M. 2008 | 0.73 (0.35, 1.54) |
| Butts, C. A. 2009  | 1.61 (0.80, 3.23) |
| Wang, J. 2019      | 0.68 (0.39, 1.17) |
| Chen, D. 2020      | 0.68 (0.53, 0.86) |
| Ito, H. 2020       | 1.17 (0.54, 2.52) |
| Subgroup, IV ($\tau^2 = 0.0\%$, $p = 0.636$) | 0.67 (0.61, 0.72) |
| Heterogeneity between groups: $p = 0.041$ |          |
| Overall, IV ($\tau^2 = 9.8\%$, $p = 0.351$) | 0.65 (0.60, 0.70) |

Figure S2 Subgroup Analyses of the Associations between Follow-Up Periods and Overall Survival (OS).