

Supplementary Table 1. Stage-stratified associations between dementia status and standard cancer treatment in older adults.

| | Odds ratio (95% CI) | <i>P</i> value | Odds ratio (95% CI) | <i>P</i> value | Odds ratio (95% CI) | <i>P</i> value |
|-----------------------------|--|----------------|--|----------------|--|----------------|
| | | | <u>Tumour resection^a for stage 0 CRC (n=1916)</u> | | | |
| No dementia | Reference | | Reference | | | |
| Mild dementia | | | 0.99 (0.12–8.07) | 0.994 | | |
| Moderate-to-severe dementia | | | 0.05 (0.01–0.28) | <0.001 | | |
| | <u>Tumour resection for stage I GC (n=3756)</u> | | <u>Tumour resection for stage I CRC (n=1495)</u> | | <u>Tumour resection for stage I NSCLC (n=1424)</u> | |
| No dementia | Reference | | Reference | | Reference | |
| Mild dementia | 0.59 (0.34–1.04) | 0.068 | 0.88 (0.40–1.94) | 0.760 | 0.30 (0.17–0.53) | <0.001 |
| Moderate-to-severe dementia | 0.11 (0.05–0.22) | <0.001 | 0.22 (0.06–0.81) | 0.023 | 0.25 (0.05–1.17) | 0.079 |
| | <u>Tumour resection for stage II GC (n=573)</u> | | <u>Tumour resection for stage II CRC (n=1431)</u> | | <u>Tumour resection for stage II NSCLC (n=374)</u> | |
| No dementia | Reference | | Reference | | Reference | |
| Mild dementia | 1.15 (0.50–2.67) | 0.738 | 1.25 (0.55–2.84) | 0.594 | 0.31 (0.08–1.23) | 0.096 |
| Moderate-to-severe dementia | 0.20 (0.03–1.25) | 0.085 | 0.65 (0.24–1.77) | 0.401 | 0.00 (0.00–>1000) | >0.99 |
| | <u>Tumour resection for stage III GC (n=622)</u> | | <u>Tumour resection for stage III CRC (n=1430)</u> | | <u>Pharmacotherapy for stage III NSCLC (n=717)</u> | |
| No dementia | Reference | | Reference | | Reference | |
| Mild dementia | 1.80 (0.80–4.06) | 0.154 | 2.47 (1.32–4.63) | 0.005 | 0.36 (0.08–1.58) | 0.176 |
| Moderate-to-severe dementia | 0.79 (0.19–3.31) | 0.752 | 2.63 (0.79–8.74) | 0.114 | 0.00 (0.00–>1000) | >0.99 |
| | <u>Pharmacotherapy for stage IV GC (n=969)</u> | | <u>Tumour resection for stage IV CRC (n=924)</u> | | <u>Pharmacotherapy for stage IV NSCLC (n=1451)</u> | |
| No dementia | Reference | | Reference | | Reference | |
| Mild dementia | 0.50 (0.22–1.13) | 0.095 | 1.54 (0.85–2.77) | 0.153 | 0.38 (0.23–0.64) | <0.001 |
| Moderate-to-severe dementia | 0.41 (0.11–1.49) | 0.175 | 1.35 (0.57–3.20) | 0.500 | 0.25 (0.09–0.66) | 0.005 |

CI, confidence interval; CRC, colorectal cancer; GC, gastric cancer; NSCLC, non-small cell lung cancer. All odds ratios are adjusted for age, sex, and comorbidities.

^aTumour resection includes endoscopic resection, open surgical resection, laparoscopic resection, and thoracoscopic resection.