

**Table S2.** Risk of glioma for different levels of mobile phone use by ipsilateral and contralateral among self-respondents<sup>a</sup>

| Variable and level of exposure                      |                       | Ipsilateral |          |                           |                 | Contralateral |          |                           |                 |
|---|-----------------------|-------------|----------|---------------------------|-----------------|---------------|----------|---------------------------|-----------------|
|   |                       | Cases       | Controls | aOR (95% CI) <sup>b</sup> | <i>p</i> -trend | Cases         | Controls | aOR (95% CI) <sup>b</sup> | <i>p</i> -trend |
|   |                       | (n=104)     | (n=93)   |                           |                 | (n=83)        | (n=85)   |                           |                 |
| Use of mobile phones                                | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.27            | 28            | 38       | 1.00 (reference)          | 0.60            |
|   | User                  | 52          | 48       | 1.48 (0.67, 3.26)         |                 | 27            | 44       | 1.28 (0.51, 3.20)         |                 |
| Type of mobile phone use                            | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.35            | 28            | 38       | 1.00 (reference)          | 0.36            |
|   | Analogue              | 2           | 3        | 0.64 (0.74, 5.65)         |                 | 3             | 2        | 3.44 (0.39, 30.0)         |                 |
|   | Analogue+digital      | 31          | 25       | 2.49 (0.92, 6.73)         |                 | 15            | 22       | 1.43 (0.49, 4.17)         |                 |
|   | Digital               | 18          | 20       | 1.03 (0.41, 2.62)         |                 | 9             | 20       | 0.94 (0.30, 2.98)         |                 |
| Lifetime years of use (mo)                          | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.17            | 28            | 38       | 1.00 (reference)          | 0.42            |
|   | <48                   | 7           | 4        | 1.71 (0.35, 8.38)         |                 | 5             | 7        | 1.36 (0.28, 6.57)         |                 |
|   | 48-84                 | 12          | 22       | 0.76 (0.27, 2.11)         |                 | 10            | 12       | 1.60 (0.50, 5.07)         |                 |
|   | >84                   | 32          | 22       | 2.61 (0.97, 7.01)         |                 | 12            | 25       | 1.04 (0.34, 3.12)         |                 |
| Cumulative hours of use (hr) <sup>c</sup>           | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.14            | 28            | 38       | 1.00 (reference)          | 0.49            |
|   | <300                  | 12          | 14       | 1.10 (0.37, 3.24)         |                 | 9             | 13       | 1.40 (0.41, 4.72)         |                 |
|   | 300-900               | 18          | 19       | 1.50 (0.55, 4.06)         |                 | 8             | 12       | 1.88 (0.53, 6.63)         |                 |
|   | >900                  | 21          | 15       | 1.79 (0.65, 4.89)         |                 | 10            | 19       | 0.89 (0.27, 2.92)         |                 |
| Monthly service fee<br>(10 <sup>3</sup> Korean won) | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.03            | 28            | 38       | 1.00 (reference)          | 0.78            |
|   | <30                   | 12          | 16       | 1.07 (0.36, 3.14)         |                 | 11            | 13       | 1.74 (0.52, 5.80)         |                 |
|   | 30- 49                | 26          | 23       | 1.61 (0.65, 3.95)         |                 | 6             | 16       | 0.88 (0.25, 3.05)         |                 |
|   | 50-80                 | 8           | 6        | 1.58 (0.39, 6.36)         |                 | 6             | 12       | 0.97 (0.22, 4.18)         |                 |
|   | >80                   | 6           | 1        | 7.42 (0.68, 80.4)         |                 | 4             | 2        | 3.49 (0.47, 25.8)         |                 |
| Average daily receiving call                        | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.07            | 28            | 38       | 1.00 (reference)          | 0.44            |
|   | ≤2                    | 9           | 11       | 1.22 (0.39, 3.79)         |                 | 8             | 8        | 1.82 (0.49, 6.75)         |                 |
|   | 3-5                   | 16          | 20       | 1.03 (0.30, 2.82)         |                 | 8             | 17       | 1.19 (0.36, 3.89)         |                 |
|   | 6-9                   | 11          | 7        | 1.83 (0.53, 6.27)         |                 | 4             | 6        | 1.46 (0.27, 7.96)         |                 |
|   | ≥10                   | 16          | 10       | 2.48 (0.79, 7.74)         |                 | 7             | 13       | 0.85 (0.21, 3.32)         |                 |
| Average daily sending call                          | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.05            | 28            | 38       | 1.00 (reference)          | 0.63            |
|   | ≤2                    | 10          | 13       | 1.17 (0.40, 3.46)         |                 | 11            | 11       | 1.82 (0.56, 5.84)         |                 |
|   | 3-5                   | 22          | 21       | 1.39 (0.51, 3.77)         |                 | 5             | 19       | 0.57 (0.15, 2.14)         |                 |
|   | 6-9                   | 6           | 10       | 0.77 (0.19, 2.99)         |                 | 5             | 6        | 2.38 (0.46, 12.2)         |                 |
|   | ≥10                   | 14          | 4        | 5.38 (1.31, 22.1)         |                 | 6             | 8        | 1.32 (0.27, 6.42)         |                 |
| Average duration time (min)                         | Non-user <sup>a</sup> | 28          | 38       | 1.00 (reference)          | 0.19            | 28            | 38       | 1.00 (reference)          | 0.51            |
|   | ≤2                    | 22          | 24       | 1.08 (0.47, 2.49)         |                 | 14            | 24       | 1.33 (0.52, 3.40)         |                 |
|   | 3-4                   | 19          | 17       | 1.28 (0.52, 3.17)         |                 | 8             | 11       | 1.06 (0.33, 3.35)         |                 |
|   | ≥5                    | 11          | 7        | 0.98 (0.28, 3.40)         |                 | 5             | 9        | 0.81 (0.22, 2.96)         |                 |

aOR, adjusted odds ratio CI, confidence interval.

<sup>a</sup>Reference category is never or non-regular use of any type of mobile phone.

<sup>b</sup>aORs (95% CIs) were derived from unconditional logistic regression for 1:1-matched pairs, with results adjusted for area, education, hair coloring, alcohol drinking, computer use and electro-blanket use.

<sup>c</sup>For cumulative number and duration of calls category cut-off points were median and 75th percentile.