**Supplementary Table 1.** Adjusted pooled hazard ratios (pHRs) and 95% confidence intervals (CIs) for the association between cigarette smoking and overall survival among 7,215 women from 15 studies with epithelial ovarian cancer (overall and by histotype), with additional adjustment for BMI and level of education

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Overall** |  | **Serous** |  | **Mucinous** | **Endometrioid** |  | **Clear cell** |
|   | **Cases** | **I2 (%)** | **pHR2** | **95% CI** |  | **Cases** | **I2 (%)** | **pHR2** | **95% CI** |  | **Cases** | **I2 (%)** | **pHR2** | **95% CI** |  | **Cases** | **I2 (%)** | **pHR2** | **95% CI** |  | **Cases** | **I2 (%)** | **pHR2** | **95% CI** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Smoking status3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Never smoker4 | 3,886 | - | 1.00 | Ref. |  | 2,171 | - | 1.00 | Ref. |  | 232 | - | 1.00 | Ref. |  | 667 | - | 1.00 | Ref. |  | 296 | - | 1.00 | Ref. |
|  Former smoker | 2,293 | 28.3 | 1.13 | (1.03-1.23) |  | 1,374 | 0.0 | 1.15 | (1.06-1.25) |  | 121 | 0.0 | 1.29 | (0.66-2.53) |  | 369 | 42.4 | 0.76 | (0.52-1.09) |  | 112 | 8.3 | 1.23 | (0.72-2.11) |
|  Current smoker | 1,036 | 0.0 | 1.21 | (1.10-1.33) |  | 596 | 0.0 | 1.16 | (1.03-1.29) |  | 108 | 0.4 | 2.51 | (1.11-5.67) |  | 142 | 28.4 | 1.02 | (0.65-1.62) |  | 55 | 0.0 | 1.18 | (0.68-2.06) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cigarette consumption (per day)5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  1-≤10 | 1,384 | 25.2 | 1.12 | (1.02-1.24) |  | 847 | 15.1 | 1.16 | (1.04-1.30) |  | 85 | 0.0 | 1.23 | (0.59-2.58) |  | 206 | 29.0 | 0.67 | (0.44-1.02) |  | 67 | 6.9 | 0.98 | (0.50-1.91) |
|  >10-≤20 | 1,312 | 0.0 | 1.13 | (1.03-1.23) |  | 752 | 0.0 | 1.08 | (0.98-1.20) |  | 98 | 0.0 | 1.71 | (0.82-3.55) |  | 198 | 67.9 | 1.08 | (0.59-1.99)1 |  | 75 | 18.3 | 1.61 | (0.85-3.06) |
|  >20 | 548 | 0.0 | 1.31 | (1.17-1.47) |  | 324 | 0.0 | 1.34 | (1.17-1.54) |  | 43 |  | NA10 |  |  | 86 | 34.5 | 1.06 | (0.59-1.90) |  | 19 | 0.0 | 1.21 | (0.44-3.38) |
|  Per 5 cigarettes/day6 |  | 0.0 | 1.02 | (1.00-1.04) |  |  | 0.0 | 1.01 | (0.98-1.03) |  |  | 0.0 | 1.22 | (1.03-1.44) |  |  | 29.8 | 1.08 | (0.98-1.19) |  |  | 0.0 | 1.06 | (0.90-1.26) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Duration of smoking before diagnosis7 (years)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  1-≤10 | 732 | 0.0 | 1.11 | (1.00-1.24) |  | 429 | 0.0 | 1.16 | (1.02-1.32) |  | 37 | 36.6 | 4.04 | (0.53-30.57) |  | 123 | 37.6 | 0.79 | (0.43-1.46) |  | 36 | 12.9 | 1.99 | (0.72-5.51) |
|  >10-≤20 | 671 | 9.9 | 1.10 | (0.98-1.25) |  | 391 | 0.0 | 1.15 | (1.01-1.32) |  | 47 | 0.0 | 1.21 | (0.41-3.53) |  | 110 | 0.0 | 0.67 | (0.43-1.04) |  | 34 | 0.0 | 1.65 | (0.75-3.60) |
|  >20 | 1,836 | 27.1 | 1.19 | (1.09-1.31) |  | 1,101 | 0.0 | 1.17 | (1.07-1.27) |  | 129 | 15.2 | 1.98 | (0.84-4.68) |  | 260 | 43.8 | 0.95 | (0.64-1.41) |  | 92 | 0.0 | 1.20 | (0.74-1.96) |
|  Per 5-year period6  |  | 51.3 | 1.02 | (1.00-1.05)1 |  |  | 52.4 | 1.01 | (0.98-1.05)1 |  |  | 47.7 | 0.95 | (0.66-1.35)1 |  |  | 0.0 | 1.06 | (0.99-1.13) |  |  | 26.1 | 1.08 | (0.93-1.27) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Time from cessation to diagnosis (years)8** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  1-≤10 | 590 | 27.5 | 1.27 | (1.10-1.47) |  | 339 | 22.5 | 1.32 | (1.12-1.56) |  | 45 | 0.0 | 1.93 | (0.73-5.13) |  | 95 | 47.8 | 1.11 | (0.57-2.18)1 |  | 23 | 0.0 | 1.03 | (0.32-3.34) |
|  >10-≤20 | 484 | 0.0 | 1.24 | (1.10-1.41) |  | 272 | 0.0 | 1.22 | (1.04-1.42) |  | 29 |  | NA10 |  |  | 83 | 30.2 | 1.14 | (0.61-2.15) |  | 22 | 0.0 | 3.26 | (1.09-9.77) |
|  >20 | 863 | 0.0 | 1.06 | (0.96-1.18) |  | 536 | 0.0 | 1.13 | (1.00-1.27) |  | 35 | 0.0 | 1.74 | (0.64-4.73) |  | 140 | 0.0 | 0.67 | (0.44-1.03) |  | 42 | 30.6 | 1.74 | (0.57-5.28) |
|  Per 5-year period9  |  | 32.7 | 0.96 | (0.93-0.99) |   | 2,171 | 30.7 | 0.97 | (0.93-1.00) |   |  | 0.0 | 0.98 | (0.81-1.19) |   |  | 11.5 | 0.94 | (0.85-1.05) |   |  | 0.0 | 0.93 | (0.72-1.19) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Numbers may not sum up to total because of missing data

1P-value for heterogeneity <0.05

2Adjusted for: age (continuous), race/ethnicity (non-Hispanic White, Hispanic White, Black, Asian or other), tumour stage (localised, regional or distant), grade (well differentiated, moderately differentiated, poorly differentiated or undifferentiated), BMI (continuous) and level of education (≤high school or >high school)

3Number of studies included for analysis: overall = 14; serous = 13, mucinous = 10; endometrioid = 13; clear cell = 10

4Never smokers was used as the reference group for all categorical analyses

5Number of studies included for analysis: overall = 14; serous = 13, mucinous = 11; endometrioid = 13; clear cell = 10

6Among ever smokers

7Number of studies included for analysis: overall = 14; serous = 13, mucinous = 12; endometrioid = 13; clear cell = 10

8Number of studies included for analysis: overall = 13; serous = 12, mucinous = 8; endometrioid = 12; clear cell = 10

9Among former smokers only

10Not applicable due to unreliable model parameters (small numbers of events)