**Suppl 2.** The Fine and Gray proportional subdistribution hazard model

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Covariate** |  | **Std. error** | **SHR** | **Lower 0.95** | **Upper 0.95** | **P** |
| **Age** |  |  |  |  |  |  |
| Less than 65 years old | Reference |  |  |  |  |  |
| Greater or equal to 65 years old |  | 0.0027 | 0.9510 | 0.9458 | 0.9562 | <0.001 |
| **Region** |  |  |  |  |  |  |
| Non-metropolitan | Reference |  |  |  |  |  |
| Metropolitan |  | 0.0066 | 1.0301 | 1.0172 | 1.0431 | <0.001 |
| **Stage** |  |  |  |  |  |  |
| *In situ* | Reference |  |  |  |  |  |
| Localized |  | 0.3513 | 1.0600 | 0.5536 | 2.0297 | 0.86 |
| Regional |  | 0.3444 | 1.0392 | 0.5427 | 1.9899 | 0.908 |
| Distant |  | 0.2192 | 0.6614 | 0.3454 | 1.2665 | 0.212 |
| **Marital status** |  |  |  |  |  |  |
| Married | Reference |  |  |  |  |  |
| Divorced or separated |  | 0.0042 | 0.8629 | 0.8547 | 0.8713 | <0.001 |
| Single, unmarried or widowed |  | 0.0028 | 0.8732 | 0.8678 | 0.8786 | <0.001 |
| **Grade** |  |  |  |  |  |  |
| Well differentiated | Reference |  |  |  |  |  |
| Moderately differentiated |  | 0.0031 | 0.9360 | 0.9299 | 0.9421 | <0.001 |
| Poorly differentiated |  | 0.0046 | 0.8853 | 0.8763 | 0.8943 | <0.001 |
| Anaplastic |  | 0.0279 | 0.5177 | 0.4657 | 0.5755 | <0.001 |
| **Race/ethnicity** |  |  |  |  |  |  |
| Caucasian | Reference |  |  |  |  |  |
| Non-Hispanic Black |  | 0.0038 | 0.8829 | 0.8755 | 0.8904 | <0.001 |
| Non-Hispanic Asian or Pacific Islander |  | 0.0049 | 0.9176 | 0.9081 | 0.9273 | <0.001 |
| Non-Hispanic American Indian/Alaska Native |  | 0.0171 | 0.6570 | 0.6244 | 0.6914 | <0.001 |
| Hispanic (all races) |  | 0.0038 | 0.8861 | 0.8786 | 0.8936 | <0.001 |
| **Income** |  |  |  |  |  |  |
| <$35,000 | Reference |  |  |  |  |  |
| $35,000 - $39,999 |  | 0.0266 | 1.0446 | 0.9937 | 1.0980 | 0.087 |
| $40,000 - $44,999 |  | 0.0246 | 1.1041 | 1.0570 | 1.1534 | <0.001 |
| $45,000 - $49,999 |  | 0.0244 | 1.1160 | 1.0692 | 1.1649 | <0.001 |
| $50,000 - $54,999 |  | 0.0246 | 1.1377 | 1.0904 | 1.1870 | <0.001 |
| $55,000 - $59,999 |  | 0.0253 | 1.1855 | 1.1370 | 1.2361 | <0.001 |
| $60,000 - $64,999 |  | 0.0243 | 1.1295 | 1.0829 | 1.1781 | <0.001 |
| $65,000 - $69,999 |  | 0.0240 | 1.1306 | 1.0846 | 1.1786 | <0.001 |
| $70,000 - $74,999 |  | 0.0246 | 1.1569 | 1.1097 | 1.2061 | <0.001 |
| $75,000+ |  | 0.0261 | 1.2430 | 1.1929 | 1.2952 | <0.001 |
| **Sex** |  |  |  |  |  |  |
| Female | Reference |  |  |  |  |  |
| Male |  | 0.0059 | 0.8520 | 0.8404 | 0.8637 | <0.001 |
| **Type of cancer** |  |  |  |  |  |  |
| Lung | Reference |  |  |  |  |  |
| Breast |  | 0.0103 | 1.6842 | 1.6642 | 1.7044 | <0.001 |
| Prostate |  | 0.0080 | 1.2705 | 1.2549 | 1.2863 | <0.001 |
| Colorectal |  | 0.0103 | 1.4128 | 1.3928 | 1.4330 | <0.001 |

SHR: subhazard analysis.