\*\*Table 3\*\*. Mixed effect Poisson regression of cognitive status on genetic factors and lifetime incarceration

|  | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable**1 | **IRR**23 | **95% CI**3 | **IRR**23 | **95% CI**3 | **IRR**23 | **95% CI**3 | **IRR**23 | **95% CI**3 | **IRR**23 | **95% CI**3 | **IRR**23 | **95% CI**3 |
| AD PGS (z-score) | 1.02 | [0.96, 1.09] |  |  | 1.02 | [0.95, 1.08] |  |  | 1.02 | [0.95, 1.08] | 1.02 | [0.96, 1.10] |
| APOE-4 allele count |  |  |  |  |  |  |  |  |  |  |  |  |
| one copy |  |  | 1.22\* | [1.04, 1.43] | 1.22\* | [1.04, 1.43] |  |  | 1.21\* | [1.03, 1.42] | 1.18 | [1.00, 1.39] |
| two copies |  |  | 1.55 | [0.98, 2.45] | 1.54 | [0.97, 2.44] |  |  | 1.55 | [0.98, 2.46] | 1.61\* | [1.00, 2.59] |
| Lifetime incarceration |  |  |  |  |  |  |  |  |  |  |  |  |
| Incarcerated |  |  |  |  |  |  | 2.13\*\*\* | [1.67, 2.73] | 2.13\*\*\* | [1.67, 2.72] | 2.01\*\*\* | [1.51, 2.67] |
| Lifetime Incarceration\*APOE-4 allele count |  |  |  |  |  |  |  |  |  |  |  |  |
| Incarcerated \* one copy |  |  |  |  |  |  |  |  |  |  | 1.31 | [0.76, 2.27] |
| Incarcerated \* two copies |  |  |  |  |  |  |  |  |  |  | 0.63 | [0.10, 3.93] |
| Lifetime Incarceration\*AD PGS (z-score) |  |  |  |  |  |  |  |  |  |  |  |  |
| Incarcerated \* AD PGS (z-score) |  |  |  |  |  |  |  |  |  |  | 0.90 | [0.70, 1.16] |
| 1All models also adjusted for age, sex, smoking history, stroke history, and social origins index. | | | | | | | | | | | | |
| 2\*p<0.05; \*\*p<0.01; \*\*\*p<0.001 | | | | | | | | | | | | |
| 3IRR = Incidence Rate Ratio, CI = Confidence Interval | | | | | | | | | | | | |