# Online Supplement File 6:

| Sensitivity analyses of exposure to ionizing radiation in association with brain tumor risk for neuroepithelial brain tumors and their controls |
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|  |  | **Adjusted** |
| **Analysis** | **Dose** | **Cases** | **Controls** | **OR** | **LCI** | **UCI** |
| **Alternative dose estimation assumption** |
| Including procedures with missing date as before 2 years from diagnosis | [0: 20) mGy | 595 | 1527 | 1 |  |  |
| [20; 50) mGy | 25 | 113 | 0.58 | 0.36 | 0.93 |
| [50;100) mGy | 10 | 29 | 0.78 | 0.36 | 1.67 |
| ≥100 mGy | 4 | 7 | 1.66 | 0.45 | 6.1 |
| Fetal exposure considered null if mother reported lead apron protection | [0-5) mGy | 624 | 1643 | 1 |  |  |
| ≥5 mGy | 6 | 11 | 2.1 | 0.73 | 6.04 |
| Neuroepithelial, number of CT-scan | None | 605 | 1555 | 1 |  |  |
| One CT | 23 | 110 | 0.52 | 0.32 | 0.84 |
| Two or more | 6 | 11 | 1.07 | 0.38 | 3 |
| Neuroepithelial, number of MRI | No MRI | 600 | 1563 | 1 |  |  |
| One MRI | 27 | 93 | 0.72 | 0.45 | 1.15 |
| Two or more | 7 | 20 | 0.65 | 0.26 | 1.65 |
| **Interview conditions** |
| Interview conducted with parents | [0: 20) mGy | 405 | 799 | 1 |  |  |
| [20; 50) mGy | 13 | 50 | 0.48 | 0.25 | 0.92 |
| [50;100) mGy | 7 | 12 | 0.79 | 0.3 | 2.12 |
| ≥100 mGy | 2 | 1 | 1.49 | 0.11 | 20.73 |
| Excluding poor quality interview (quality score <=3) | [0: 20) mGy | 490 | 1259 | 1 |  |  |
| [20; 50) mGy | 16 | 86 | 0.5 | 0.28 | 0.88 |
| [50;100) mGy | 9 | 24 | 0.8 | 0.36 | 1.79 |
| ≥100 mGy | 3 | 2 | 3.79 | 0.61 | 23.42 |
| **Medical conditions** |
| Excluding genetic condition | [0: 20) mGy | 585 | 1505 | 1 |  |  |
| [20; 50) mGy | 24 | 110 | 0.58 | 0.36 | 0.93 |
| [50;100) mGy | 8 | 27 | 0.66 | 0.29 | 1.51 |
| ≥100 mGy | 4 | 6 | 1.85 | 0.48 | 7.16 |
| Excluding those with a diagnosis of neurological disease 5 year before cancer/appendicitis | [0: 20) mGy | 541 | 1389 | 1 |  |  |
| [20; 50) mGy | 17 | 85 | 0.51 | 0.29 | 0.89 |
| [50;100) mGy | 6 | 17 | 0.95 | 0.36 | 2.53 |
| ≥100 mGy | 3 | 3 | 2.86 | 0.53 | 15.52 |
| **Socioeconomic status** |
| Adjusted for parental education | [0: 20) mGy | 597 | 1529 | 1 |  |  |
| [20; 50) mGy | 24 | 112 | 0.56 | 0.35 | 0.91 |
| [50;100) mGy | 9 | 28 | 0.68 | 0.31 | 1.51 |
| ≥100 mGy | 4 | 7 | 1.78 | 0.48 | 6.69 |