Melanoma risk and survival among organ transplant recipients

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Supplemental material
Supplemental Table 1: Adjusted incidence rate ratios for melanoma among 139,991 non-Hispanic white transplant recipients, stratified by melanoma stage

| Characteristic                          | Localized stage | Regional and distant stage |  |
|-----------------------------------------|-----------------|----------------------------|---|
|                                         | aIRR (95% CI)   | p<sub>het</sub> | p<sub>trend</sub> | aIRR (95% CI) | p<sub>het</sub> | p<sub>trend</sub> |
| Ultraviolet radiation                   |                 |               |               |               |               |               |
| Latitude quintile, degrees north        |                 |               |               |               |               |               |
| ≥42.9 (lowest UVR)                      | Reference       | 0.162         | 0.079         | Reference     | 0.322         | 0.270         |
| 36.7-42.8                               |                 |               |               |               |               |               |
| 30.6-36.6                               |                 |               |               |               |               |               |
| ≤30.5 (high+highest UVR)                |                 |               |               |               |               |               |
| AVGLO quintile, Wh/km²                  |                 |               |               |               |               |               |
| ≤3,552 (lowest UVR)                     | Reference       | 0.056         | 0.052         | Reference     | 0.624         | 0.131         |
| 3,553-4,092                             |                 |               |               |               |               |               |
| 4,093-4,633                             |                 |               |               |               |               |               |
| 4,634-5,173                             |                 |               |               |               |               |               |
| ≥5,174 (highest UVR)                    |                 |               |               |               |               |               |
| Induction medications                   |                 |               |               |               |               |               |
| Any induction*                          |                 |               |               |               |               |               |
| Polyclonal antibody                     |                 |               |               |               |               |               |
| T-cell depleting monoclonal antibody    |                 |               |               |               |               |               |
| Interleukin-2 receptor antagonist        |                 |               |               |               |               |               |
| Alemtuzumab                             |                 |               |               |               |               |               |
| Maintenance medications                 |                 |               |               |               |               |               |
| Cyclosporine                            |                 |               |               |               |               |               |
| Tacrolimus                              |                 |               |               |               |               |               |
| Azathioprine                            |                 |               |               |               |               |               |
| Mycophenolate mofetil                   |                 |               |               |               |               |               |
| MTOR inhibitors                         |                 |               |               |               |               |               |
| Steroids                                |                 |               |               |               |               |               |
| Other                                   |                 |               |               |               |               |               |
| Deceased donor**                        |                 |               |               |               |               |               |
| History of acute rejection***           |                 |               |               |               |               |               |

aIRR, adjusted incidence rate ratio; p<sub>het</sub>, p-value for heterogeneity (obtained using a likelihood ratio test and provided for variables with more than two levels); p<sub>trend</sub>, p-value for trend (obtained by fitting a model in which the specified variable has one degree of freedom); AVGLO, average daily global solar radiation; MTOR, mammalian target of rapamycin; NE, not estimable due to no cases among the exposed group (but not statistically significant)

*Includes T-cell depleting polyclonal antibody, T-cell depleting monoclonal antibody, interleukin-2 receptor antagonist, and alemtuzumab

**Analyzed only among kidney recipients

***Analyzed only among kidney recipients beginning at 1.5 years post-transplant, based on rejection episodes documented by transplant programs on follow-up reports for the first year post-transplant.
Each IRR is adjusted for sex, age (modeled in five categories with one degree of freedom), year of transplantation (four categories), transplanted organ (kidney, liver, lung, heart, other/multiple), and time since transplantation (six categories). Bolded p-values indicate statistical significance.