

Supplementary Table 5. Parameter estimates of the Generalized Linear Model (GLM) for patient mortality in the validation cohort

| Term | Estimate | Std Error | X ² | P value | Lower CL | Upper CL |
|---------------|----------|-----------|----------------|---------|----------|----------|
| Intercept | -7.202 | 0.998 | 104.49 | <.0001* | -9.5893 | -5.353 |
| Africa | -2.850 | 1.069 | 16.42 | <.0001* | -6.735 | -1.210 |
| Asia | 0.467 | 0.430 | 3.08 | 0.0792 | -0.354 | 1.596 |
| Europe | 0.333 | 0.434 | 2.38 | 0.1231 | -0.496 | 1.452 |
| North America | 1.668 | 0.576 | 10.03 | 0.0015* | 0.561 | 2.977 |
| Jan | 2.541 | 1.937 | 0 | 1.0000 | -2.047 | 7.138 |
| Feb | 0.098 | 1.517 | 0 | 1.0000 | -4.174 | 2.327 |
| Mar | -1.609 | 0.689 | 1.96 | 0.1611 | -3.026 | -0.248 |
| Apr | 0.478 | 0.564 | 1.84 | 0.1746 | -0.627 | 1.662 |
| May | -0.868 | 0.602 | 1.95 | 0.1625 | -2.059 | 0.361 |
| Jun | -0.594 | 0.568 | 1.81 | 0.1784 | -1.698 | 0.599 |
| Age | 0.054 | 0.011 | 36.10 | <.0001* | 0.032 | 0.0776 |
| A23349 | -1.359 | 0.782 | 4.77 | 0.0289* | -3.857 | 0.002 |
| C14353 | -0.088 | 0.357 | 2.21 | 0.1368 | -0.927 | 0.541 |
| CA28827-8 | -0.637 | 0.263 | 8.60 | 0.0034* | -1.211 | -0.112 |

*Statistically significant P values. Std Error: standard error. CL: 95% confidence interval of estimates. The overall model had a $X^2=55.51$, $P<0.0001$. AICc=247.06, with effect tests for geographic region ($X^2=29.78$, d.f.=4, $P<0.0001$), time of year ($X^2=14.45$, d.f.=6, $P=0.025$), age ($X^2=36.10$, d.f.=1, $P<0.0001$), A/G23349 ($X^2=4.77$, d.f.=2, $P=0.0289$), C/T14353 ($X^2=2.21$, d.f.=1, $P<0.136$), and CA/GG28827-8 ($X^2=8.59$, d.f.=1, $P=0.0034$).