**Table 1. Descriptive Characteristics of the Overall Study Population and by Relative Amplitude Categories**

**RA Cutoff = 0.89 (Sample Size = 4822)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | OverallSample  (n=) | RABelow  (n=) | RAAbove  (n=) | P.Value |
| Age | 48.337 (0.397) | 49.476 (0.502) | 46.745 (0.427) | p < 0.001 |
| Gender-Female | 53% | 50.6% | 55.1% | p = 0.05 |
| Race-Asian Race-Black Race-Hispanic Race-White | 4.9% 11.3% 14.4% 66.6% | 4.8% 16.5% 12.6% 62.3% | 4.9% 7% 16.1% 69.9% | p < 0.001 |
| Marital Status-Married Marital Status-Not Married | 63.9% 36.1% | 56.9% 43% | 68.4% 31.6% | p < 0.001 |
| Education Dichotomous-College Education Dichotomous-No College | 63.6% 36.4% | 61.8% 38.1% | 64.5% 35.5% | p = 0.298 |
| Smoking Status-1 | 44.8% | 51.3% | 38.5% | p < 0.001 |
| Alcohol | 2.547 (0.083) | 2.667 (0.091) | 2.477 (0.099) | p = 0.044 |
| Sleep Duration | 6.957 (0.031) | 6.804 (0.054) | 7.08 (0.033) | p < 0.001 |
| BMI (kg/m^2) | 29.402 (0.177) | 30.429 (0.279) | 28.375 (0.158) | p < 0.001 |
| Obesity-1 | 39.4% | 45.4% | 33.5% | p < 0.001 |
| Waist Circumference | 100.172 (0.303) | 103.082 (0.512) | 97.261 (0.38) | p < 0.001 |
| Central Adiposity-1 | 57% | 62.3% | 51.3% | p < 0.001 |
| Fasting Glucose (mg/dl) | 105.658 (0.571) | 111.927 (1.475) | 100.699 (0.843) | p < 0.001 |
| Type 2 Diabetes-1 | 12.8% | 18% | 8.8% | p < 0.001 |
| Systolic Blood Pressure (mmHg) | 121.2 (0.393) | 123.36 (0.504) | 119.212 (0.459) | p < 0.001 |
| Diastolic Blood Pressure (mmHg) | 69.556 (0.338) | 69.641 (0.445) | 69.141 (0.288) | p = 0.19 |
| Hypertension-1 | 43% | 49% | 37% | p < 0.001 |
| Cardiovascular Disease-1 | 9.2% | 13.1% | 5.9% | p < 0.001 |
| Inter-daily Stability (IS60) | 0.642 (0.003) | 0.585 (0.004) | 0.688 (0.003) | p < 0.001 |
| Intra-daily Variability (IV60) | 0.693 (0.006) | 0.759 (0.007) | 0.634 (0.008) | p < 0.001 |
| M10 Midpoint | 14.159 (0.05) | 14.489 (0.061) | 13.907 (0.074) | p < 0.001 |
| M10 Counts | 494.417 (3.745) | 456.018 (4.043) | 527.547 (5.91) | p < 0.001 |
| L5 Midpoint | 3.944 (0.098) | 4.396 (0.127) | 3.584 (0.082) | p < 0.001 |
| L5 Counts | 36.315 (0.713) | 59.213 (1.013) | 17.365 (0.345) | p < 0.001 |
| Relative Amplitude | 0.863 (0.003) | 0.772 (0.003) | 0.938 (0.001) | p < 0.001 |

**Table 2. Linear regression models for 24-h Rest-Activity Pattern Variables in Relation to Blood Pressure**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Diastolic Blood Pressure (mmHg) (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Est (p-value) (95% C.I.) | Model 2  Est (p-value) (95% C.I.) | Model 3  Est (p-value) (95% C.I.) |
| M10 Counts (x100) | -0.059 (p = 0.706) (-0.358 to 0.241) | 0.121 (p = 0.678) (-0.397 to 0.638) | 0.288 (p = 0.359) (-0.234 to 0.809) |
| M10 Midpoint | -0.022 (p = 0.845) (-0.236 to 0.192) | -0.022 (p = 0.914) (-0.397 to 0.352) | -0.03 (p = 0.884) (-0.399 to 0.339) |
| L5 Midpoint | 0.15 (p = 0.011) (0.05 to 0.25) | 0.252 (p = 0.027) (0.13 to 0.374) | 0.245 (p = 0.03) (0.123 to 0.368) |
| Relative Amplitude | -1.42 (p = 0.491) (-5.351 to 2.511) | -3.324 (p = 0.282) (-8.305 to 1.657) | -1.749 (p = 0.589) (-7.44 to 3.942) |
| Intra-daily Variability (IV60) | -1.312 (p = 0.22) (-3.315 to 0.692) | -0.546 (p = 0.723) (-3.299 to 2.207) | -1.076 (p = 0.523) (-4.003 to 1.851) |
| Inter-daily Stability (IS60) | -0.188 (p = 0.906) (-3.238 to 2.862) | -0.837 (p = 0.68) (-4.44 to 2.767) | -0.099 (p = 0.963) (-3.998 to 3.8) |
| L5 Counts | 0.007 (p = 0.22) (-0.004 to 0.017) | 0.012 (p = 0.243) (-0.004 to 0.028) | 0.009 (p = 0.373) (-0.008 to 0.026) |
|  | Systolic Blood Pressure (mmHg) (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Est (p-value) (95% C.I.) | Model 2  Est (p-value) (95% C.I.) | Model 3  Est (p-value) (95% C.I.) |
| M10 Counts (x100) | -0.948 (p < 0.001) (-1.256 to -0.64) | 0.392 (p = 0.133) (0.017 to 0.767) | 0.594 (p = 0.058) (0.204 to 0.984) |
| M10 Midpoint | -0.628 (p < 0.001) (-0.768 to -0.488) | 0.133 (p = 0.543) (-0.249 to 0.515) | 0.123 (p = 0.582) (-0.27 to 0.517) |
| L5 Midpoint | 0.204 (p = 0.028) (0.041 to 0.368) | 0.235 (p = 0.158) (-0.011 to 0.482) | 0.229 (p = 0.188) (-0.035 to 0.492) |
| Relative Amplitude | -14.035 (p < 0.001) (-18.478 to -9.592) | -4.566 (p = 0.272) (-11.227 to 2.095) | -2.097 (p = 0.591) (-8.958 to 4.764) |
| Intra-daily Variability (IV60) | 3.05 (p = 0.006) (1.198 to 4.903) | -0.906 (p = 0.657) (-4.522 to 2.71) | -1.446 (p = 0.513) (-5.279 to 2.388) |
| Inter-daily Stability (IS60) | 5.702 (p = 0.003) (2.535 to 8.869) | 3.389 (p = 0.286) (-1.747 to 8.525) | 4.149 (p = 0.213) (-1.006 to 9.305) |
| L5 Counts | 0.023 (p = 0.034) (0.004 to 0.042) | 0.016 (p = 0.284) (-0.008 to 0.04) | 0.011 (p = 0.44) (-0.014 to 0.036) |

**Model 1: Univariate model.  
Model 2: Adjusted for age, sex, marital status, education, race/ethnicity, smoking, and alcohol use.  
Model 3: Additionally adjusted for BMI on hypertension, cardiovascular disease, systolic blood pressure, and diastolic blood pressure.**

**Table 3. Linear regression models for 24-h Rest-Activity Pattern Variables in Relation to Metabolic Outcomes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | BMI (kg/m^2) (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Est (p-value) (95% C.I.) | Model 2  Est (p-value) (95% C.I.) | Model 3  Est (p-value) (95% C.I.) |
| M10 Counts (x100) | -0.569 (p < 0.001) (-0.693 to -0.445) | -0.664 (p = 0.005) (-0.89 to -0.437) |  |
| M10 Midpoint | -0.059 (p = 0.283) (-0.162 to 0.044) | 0.039 (p = 0.6) (-0.094 to 0.171) |  |
| L5 Midpoint | 0.046 (p = 0.114) (-0.008 to 0.1) | -0.024 (p = 0.526) (-0.093 to 0.044) |  |
| Relative Amplitude | -8.558 (p < 0.001) (-10.654 to -6.463) | -8.612 (p = 0.011) (-12.364 to -4.86) |  |
| Intra-daily Variability (IV60) | 1.435 (p = 0.011) (0.481 to 2.388) | 2.998 (p = 0.013) (1.62 to 4.376) |  |
| Inter-daily Stability (IS60) | -2.502 (p = 0.003) (-3.868 to -1.136) | -2.673 (p = 0.022) (-4.115 to -1.231) |  |
| L5 Counts | 0.016 (p < 0.001) (0.01 to 0.021) | 0.013 (p = 0.103) (0.001 to 0.025) |  |
|  | Fasting Glucose (mg/dl) (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Est (p-value) (95% C.I.) | Model 2  Est (p-value) (95% C.I.) | Model 3  Est (p-value) (95% C.I.) |
| M10 Counts (x100) | -3.135 (p < 0.001) (-3.985 to -2.286) | -1.648 (p = 0.029) (-2.612 to -0.683) |  |
| M10 Midpoint | -0.467 (p = 0.202) (-1.151 to 0.217) | 0.971 (p = 0.187) (-0.224 to 2.166) |  |
| L5 Midpoint | 0.79 (p = 0.103) (-0.098 to 1.677) | 0.067 (p = 0.789) (-0.392 to 0.527) |  |
| Relative Amplitude | -33.855 (p = 0.001) (-50.038 to -17.672) | -4.023 (p = 0.595) (-17.685 to 9.638) |  |
| Intra-daily Variability (IV60) | 9.361 (p = 0.002) (4.69 to 14.031) | -0.165 (p = 0.972) (-8.746 to 8.417) |  |
| Inter-daily Stability (IS60) | -10.342 (p = 0.074) (-20.833 to 0.149) | -4.473 (p = 0.412) (-14.059 to 5.113) |  |
| L5 Counts | 0.039 (p = 0.023) (0.009 to 0.07) | -0.012 (p = 0.416) (-0.038 to 0.014) |  |
|  | Waist Circumference (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Est (p-value) (95% C.I.) | Model 2  Est (p-value) (95% C.I.) | Model 3  Est (p-value) (95% C.I.) |
| M10 Counts (x100) | -1.878 (p < 0.001) (-2.198 to -1.557) | -1.713 (p = 0.005) (-2.309 to -1.117) |  |
| M10 Midpoint | -0.274 (p = 0.046) (-0.518 to -0.029) | 0.07 (p = 0.717) (-0.283 to 0.424) |  |
| L5 Midpoint | 0.1 (p = 0.171) (-0.036 to 0.235) | -0.062 (p = 0.524) (-0.237 to 0.113) |  |
| Relative Amplitude | -23.102 (p < 0.001) (-28.509 to -17.696) | -19.656 (p = 0.008) (-27.366 to -11.946) |  |
| Intra-daily Variability (IV60) | 5.255 (p < 0.001) (2.959 to 7.551) | 6.805 (p = 0.012) (3.72 to 9.89) |  |
| Inter-daily Stability (IS60) | -2.564 (p = 0.113) (-5.533 to 0.406) | -3.202 (p = 0.248) (-7.853 to 1.448) |  |
| L5 Counts | 0.036 (p < 0.001) (0.02 to 0.052) | 0.035 (p = 0.056) (0.009 to 0.061) |  |

**Table 4. Logistic regression models for 24-h Rest-Activity Pattern Variables in Relation to Blood Pressure**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cardiovascular Disease (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 2  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 3  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend |
| M10 Midpoint Tertile1 (<= 12.817) Tertile2 (12.817 ~ 15.15) Tertile3 (> 15.15) | 0.934(0.762 to 1.144) 0.527(0.389 to 0.714) p < 0.001 | 1.147(0.721 to 1.825) 1.574(0.728 to 3.403) p = 0.249 | 1.173(0.749 to 1.835) 1.49(0.677 to 3.276) p = 0.322 |
| L5 Counts Tertile1 (<= 21.051) Tertile2 (21.051 ~ 38.7) Tertile3 (> 38.7) | 1.091(0.797 to 1.493) 1.621(1.246 to 2.107) p < 0.001 | 1.019(0.587 to 1.769) 1.341(0.742 to 2.422) p = 0.331 | 1.015(0.58 to 1.778) 1.287(0.674 to 2.457) p = 0.444 |
| Relative Amplitude Tertile1 (<= 0.846) Tertile2 (0.846 ~ 0.92) Tertile3 (> 0.92) | 0.512(0.406 to 0.644) 0.285(0.202 to 0.402) p < 0.001 | 0.598(0.331 to 1.081) 0.465(0.248 to 0.87) p = 0.017 | 0.649(0.358 to 1.178) 0.488(0.234 to 1.017) p = 0.056 |
| Intra-daily Variability (IV60) Tertile1 (<= 0.559) Tertile2 (0.559 ~ 0.766) Tertile3 (> 0.766) | 2.014(1.356 to 2.99) 3.674(2.683 to 5.03) p < 0.001 | 1.454(0.794 to 2.661) 2.403(1.229 to 4.7) p = 0.01 | 1.479(0.826 to 2.648) 2.325(1.196 to 4.519) p = 0.013 |
| Inter-daily Stability (IS60) Tertile1 (<= 0.584) Tertile2 (0.584 ~ 0.726) Tertile3 (> 0.726) | 1.279(0.968 to 1.69) 0.68(0.496 to 0.931) p = 0.016 | 1.224(0.539 to 2.78) 0.688(0.315 to 1.502) p = 0.348 | 1.251(0.532 to 2.939) 0.709(0.318 to 1.579) p = 0.4 |
| M10 Counts (x100) Tertile1 (<= 4.127) Tertile2 (4.127 ~ 5.567) Tertile3 (> 5.567) | 0.365(0.289 to 0.46) 0.208(0.147 to 0.295) p < 0.001 | 0.37(0.218 to 0.629) 0.338(0.194 to 0.59) p < 0.001 | 0.378(0.219 to 0.65) 0.349(0.203 to 0.601) p < 0.001 |
| L5 Midpoint Tertile1 (<= 2.6) Tertile2 (2.6 ~ 3.983) Tertile3 (> 3.983) | 0.948(0.771 to 1.166) 1.12(0.8 to 1.569) p = 0.509 | 1.122(0.655 to 1.924) 1.676(1.009 to 2.783) p = 0.046 | 1.043(0.588 to 1.853) 1.589(0.899 to 2.811) p = 0.111 |
|  | Hypertension (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 2  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 3  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend |
| M10 Midpoint Tertile1 (<= 12.817) Tertile2 (12.817 ~ 15.15) Tertile3 (> 15.15) | 1.009(0.865 to 1.177) 0.538(0.467 to 0.619) p < 0.001 | 0.933(0.665 to 1.309) 1.089(0.832 to 1.426) p = 0.534 | 1.031(0.721 to 1.473) 1.128(0.86 to 1.48) p = 0.385 |
| L5 Counts Tertile1 (<= 21.051) Tertile2 (21.051 ~ 38.7) Tertile3 (> 38.7) | 1.199(0.995 to 1.445) 1.399(1.157 to 1.691) p < 0.001 | 1.365(0.974 to 1.914) 1.719(1.063 to 2.78) p = 0.027 | 1.335(0.942 to 1.892) 1.516(0.909 to 2.527) p = 0.111 |
| Relative Amplitude Tertile1 (<= 0.846) Tertile2 (0.846 ~ 0.92) Tertile3 (> 0.92) | 0.842(0.752 to 0.943) 0.496(0.419 to 0.586) p < 0.001 | 0.735(0.532 to 1.017) 0.627(0.398 to 0.989) p = 0.045 | 0.843(0.604 to 1.177) 0.748(0.456 to 1.229) p = 0.252 |
| Intra-daily Variability (IV60) Tertile1 (<= 0.559) Tertile2 (0.559 ~ 0.766) Tertile3 (> 0.766) | 1.252(1.034 to 1.517) 1.477(1.174 to 1.857) p < 0.001 | 1.108(0.773 to 1.588) 1.124(0.756 to 1.671) p = 0.563 | 1.118(0.792 to 1.577) 1.009(0.689 to 1.477) p = 0.965 |
| Inter-daily Stability (IS60) Tertile1 (<= 0.584) Tertile2 (0.584 ~ 0.726) Tertile3 (> 0.726) | 1.186(1.004 to 1.402) 1.183(1.05 to 1.333) p = 0.006 | 0.989(0.721 to 1.356) 0.963(0.654 to 1.417) p = 0.847 | 0.988(0.721 to 1.353) 1.029(0.673 to 1.574) p = 0.893 |
| M10 Counts (x100) Tertile1 (<= 4.127) Tertile2 (4.127 ~ 5.567) Tertile3 (> 5.567) | 0.713(0.617 to 0.824) 0.457(0.404 to 0.516) p < 0.001 | 1.206(0.811 to 1.794) 0.997(0.735 to 1.354) p = 0.985 | 1.267(0.816 to 1.967) 1.237(0.922 to 1.659) p = 0.156 |
| L5 Midpoint Tertile1 (<= 2.6) Tertile2 (2.6 ~ 3.983) Tertile3 (> 3.983) | 0.841(0.731 to 0.967) 0.845(0.686 to 1.04) p = 0.111 | 1.14(0.808 to 1.608) 1.406(1.115 to 1.771) p = 0.004 | 1.094(0.762 to 1.572) 1.307(1.026 to 1.667) p = 0.03 |

**Table 5. Logistic regression models for 24-h Rest-Activity Pattern Variables in Relation to Cardiometabolic Outcomes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Type 2 Diabetes (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 2  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 3  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend |
| M10 Midpoint Tertile1 (<= 12.817) Tertile2 (12.817 ~ 15.15) Tertile3 (> 15.15) | 0.9(0.643 to 1.259) 0.652(0.468 to 0.908) p = 0.011 | 0.877(0.412 to 1.865) 1.691(0.793 to 3.605) p = 0.174 |  |
| L5 Counts Tertile1 (<= 21.051) Tertile2 (21.051 ~ 38.7) Tertile3 (> 38.7) | 1.488(0.944 to 2.346) 1.956(1.175 to 3.256) p = 0.01 | 1.375(0.474 to 3.987) 1.592(0.636 to 3.986) p = 0.32 |  |
| Relative Amplitude Tertile1 (<= 0.846) Tertile2 (0.846 ~ 0.92) Tertile3 (> 0.92) | 0.637(0.462 to 0.876) 0.274(0.175 to 0.429) p < 0.001 | 0.872(0.423 to 1.798) 0.34(0.163 to 0.71) p = 0.004 |  |
| Intra-daily Variability (IV60) Tertile1 (<= 0.559) Tertile2 (0.559 ~ 0.766) Tertile3 (> 0.766) | 1.592(1.228 to 2.063) 2.185(1.585 to 3.014) p < 0.001 | 1.237(0.719 to 2.128) 1.826(0.748 to 4.457) p = 0.186 |  |
| Inter-daily Stability (IS60) Tertile1 (<= 0.584) Tertile2 (0.584 ~ 0.726) Tertile3 (> 0.726) | 1.215(0.856 to 1.725) 0.746(0.53 to 1.051) p = 0.094 | 0.997(0.409 to 2.429) 0.793(0.326 to 1.927) p = 0.609 |  |
| M10 Counts (x100) Tertile1 (<= 4.127) Tertile2 (4.127 ~ 5.567) Tertile3 (> 5.567) | 0.696(0.468 to 1.037) 0.244(0.181 to 0.329) p < 0.001 | 0.898(0.347 to 2.323) 0.395(0.17 to 0.92) p = 0.031 |  |
| L5 Midpoint Tertile1 (<= 2.6) Tertile2 (2.6 ~ 3.983) Tertile3 (> 3.983) | 1.013(0.713 to 1.438) 1.439(1.046 to 1.979) p = 0.025 | 1.624(0.539 to 4.892) 1.515(0.464 to 4.953) p = 0.491 |  |
|  | Central Adiposity (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 2  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 3  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend |
| M10 Midpoint Tertile1 (<= 12.817) Tertile2 (12.817 ~ 15.15) Tertile3 (> 15.15) | 1.014(0.865 to 1.188) 0.779(0.646 to 0.941) p = 0.009 | 0.866(0.632 to 1.186) 0.903(0.677 to 1.205) p = 0.488 |  |
| L5 Counts Tertile1 (<= 21.051) Tertile2 (21.051 ~ 38.7) Tertile3 (> 38.7) | 1.393(1.209 to 1.606) 1.634(1.36 to 1.963) p < 0.001 | 1.454(0.988 to 2.139) 1.791(1.32 to 2.429) p < 0.001 |  |
| Relative Amplitude Tertile1 (<= 0.846) Tertile2 (0.846 ~ 0.92) Tertile3 (> 0.92) | 0.953(0.721 to 1.261) 0.56(0.451 to 0.696) p < 0.001 | 0.857(0.662 to 1.108) 0.495(0.355 to 0.689) p < 0.001 |  |
| Intra-daily Variability (IV60) Tertile1 (<= 0.559) Tertile2 (0.559 ~ 0.766) Tertile3 (> 0.766) | 1.181(0.954 to 1.462) 1.144(0.964 to 1.359) p = 0.124 | 1.26(0.853 to 1.861) 1.171(0.928 to 1.477) p = 0.184 |  |
| Inter-daily Stability (IS60) Tertile1 (<= 0.584) Tertile2 (0.584 ~ 0.726) Tertile3 (> 0.726) | 1.168(0.935 to 1.458) 1.167(1.017 to 1.339) p = 0.028 | 0.933(0.646 to 1.348) 0.929(0.69 to 1.252) p = 0.629 |  |
| M10 Counts (x100) Tertile1 (<= 4.127) Tertile2 (4.127 ~ 5.567) Tertile3 (> 5.567) | 0.884(0.771 to 1.014) 0.687(0.599 to 0.789) p < 0.001 | 0.812(0.537 to 1.228) 0.608(0.471 to 0.786) p < 0.001 |  |
| L5 Midpoint Tertile1 (<= 2.6) Tertile2 (2.6 ~ 3.983) Tertile3 (> 3.983) | 0.939(0.816 to 1.079) 0.908(0.766 to 1.077) p = 0.27 | 0.922(0.67 to 1.267) 0.972(0.73 to 1.293) p = 0.843 |  |
|  | Obesity (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 2  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 3  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend |
| M10 Midpoint Tertile1 (<= 12.817) Tertile2 (12.817 ~ 15.15) Tertile3 (> 15.15) | 0.817(0.672 to 0.994) 0.859(0.723 to 1.02) p = 0.083 | 0.747(0.546 to 1.021) 0.902(0.61 to 1.335) p = 0.607 |  |
| L5 Counts Tertile1 (<= 21.051) Tertile2 (21.051 ~ 38.7) Tertile3 (> 38.7) | 1.218(1.009 to 1.472) 1.59(1.395 to 1.812) p < 0.001 | 1.114(0.732 to 1.693) 1.568(1.154 to 2.13) p = 0.004 |  |
| Relative Amplitude Tertile1 (<= 0.846) Tertile2 (0.846 ~ 0.92) Tertile3 (> 0.92) | 0.742(0.6 to 0.918) 0.519(0.423 to 0.637) p < 0.001 | 0.644(0.471 to 0.88) 0.5(0.361 to 0.693) p < 0.001 |  |
| Intra-daily Variability (IV60) Tertile1 (<= 0.559) Tertile2 (0.559 ~ 0.766) Tertile3 (> 0.766) | 0.958(0.804 to 1.141) 1.163(0.986 to 1.372) p = 0.073 | 0.774(0.597 to 1.002) 1.395(1.037 to 1.876) p = 0.028 |  |
| Inter-daily Stability (IS60) Tertile1 (<= 0.584) Tertile2 (0.584 ~ 0.726) Tertile3 (> 0.726) | 0.938(0.813 to 1.083) 0.869(0.738 to 1.023) p = 0.091 | 0.953(0.695 to 1.306) 0.761(0.552 to 1.048) p = 0.095 |  |
| M10 Counts (x100) Tertile1 (<= 4.127) Tertile2 (4.127 ~ 5.567) Tertile3 (> 5.567) | 0.884(0.77 to 1.015) 0.561(0.477 to 0.661) p < 0.001 | 0.867(0.604 to 1.246) 0.457(0.331 to 0.631) p < 0.001 |  |
| L5 Midpoint Tertile1 (<= 2.6) Tertile2 (2.6 ~ 3.983) Tertile3 (> 3.983) | 1.036(0.874 to 1.228) 1.115(0.952 to 1.307) p = 0.176 | 1.255(0.988 to 1.593) 1.23(0.956 to 1.583) p = 0.108 |  |

**Table 6. Logistic regression models for 24-h Rest-Activity Pattern Variables in Relation to**

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| --- | --- | --- | --- |
|  | Hypertension old definition (Sample Size = 4822) | | |
| 24-h Rest-Activity Pattern Variables | Model 1  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 2  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend | Model 3  Tertile1 OR (95% C.I.)  Tertile2 OR (95% C.I.)  Tertile3 OR (95% C.I.) p-trend |
| M10 Midpoint Tertile1 (<= 12.817) Tertile2 (12.817 ~ 15.15) Tertile3 (> 15.15) | 0.95(0.778 to 1.161) 0.441(0.386 to 0.504) p < 0.001 | 1.062(0.759 to 1.488) 0.957(0.636 to 1.439) p = 0.832 | 1.151(0.806 to 1.644) 0.951(0.633 to 1.428) p = 0.807 |
| L5 Counts Tertile1 (<= 21.051) Tertile2 (21.051 ~ 38.7) Tertile3 (> 38.7) | 1.239(1.063 to 1.445) 1.383(1.192 to 1.605) p < 0.001 | 1.348(0.876 to 2.073) 1.35(0.886 to 2.058) p = 0.163 | 1.326(0.854 to 2.058) 1.185(0.782 to 1.795) p = 0.424 |
| Relative Amplitude Tertile1 (<= 0.846) Tertile2 (0.846 ~ 0.92) Tertile3 (> 0.92) | 0.872(0.777 to 0.978) 0.454(0.395 to 0.522) p < 0.001 | 0.978(0.758 to 1.262) 0.749(0.475 to 1.181) p = 0.214 | 1.131(0.864 to 1.48) 0.899(0.568 to 1.423) p = 0.649 |
| Intra-daily Variability (IV60) Tertile1 (<= 0.559) Tertile2 (0.559 ~ 0.766) Tertile3 (> 0.766) | 1.172(0.944 to 1.456) 1.578(1.201 to 2.074) p = 0.001 | 0.941(0.585 to 1.514) 1.137(0.665 to 1.944) p = 0.639 | 0.93(0.579 to 1.493) 1.01(0.586 to 1.742) p = 0.97 |
| Inter-daily Stability (IS60) Tertile1 (<= 0.584) Tertile2 (0.584 ~ 0.726) Tertile3 (> 0.726) | 1.362(1.153 to 1.609) 1.262(1.114 to 1.431) p < 0.001 | 1.171(0.814 to 1.684) 1.019(0.612 to 1.698) p = 0.941 | 1.174(0.797 to 1.731) 1.096(0.625 to 1.92) p = 0.749 |
| M10 Counts (x100) Tertile1 (<= 4.127) Tertile2 (4.127 ~ 5.567) Tertile3 (> 5.567) | 0.735(0.598 to 0.904) 0.419(0.354 to 0.497) p < 0.001 | 1.35(0.863 to 2.111) 1.051(0.765 to 1.442) p = 0.759 | 1.445(0.898 to 2.327) 1.313(0.959 to 1.798) p = 0.089 |
| L5 Midpoint Tertile1 (<= 2.6) Tertile2 (2.6 ~ 3.983) Tertile3 (> 3.983) | 0.877(0.744 to 1.033) 0.833(0.681 to 1.018) p = 0.073 | 1.192(0.741 to 1.92) 1.328(0.955 to 1.846) p = 0.092 | 1.138(0.705 to 1.835) 1.211(0.849 to 1.727) p = 0.29 |