**Supplementary Table S1.** Results of the final mixed effect model regarding heart rate (HR) in relation to sex, age, body mass index (BMI), wet bulb globe temperature (WBGT), day, time, cooling and their interactions of ten international eventing horses in the Netherlands. As reference values mares, first day, first min (time) and control condition (no cooling) were taken.

|  |  |  |
| --- | --- | --- |
| **HR** | **Estimates of effect** | **95% CI** |
| Fixed effects |  |  |
| Intercept | 37.652 | 26.209, 49.094 |
| Sex |  |  |
| Age | 3.129 | 2.197, 4.062 |
| BMI |  |  |
| WBGT |  |  |
| Day | -6.444 | -10.333, -2.555 |
| Time |  |  |
| Min 1 | - | - |
| Min 2 | 26.729 | 14.693, 38.766 |
| Min 3 | 67.018 | 54.981, 79.055 |
| Min 4 | 84.053 | 72.0159, 96.090 |
| Min 5 | 97.964 | 85.928, 110.001 |
| Min 6 | 98.822 | 86.785, 110.859 |
| Min 7 | 81.471 | 69.434, 93.508 |
| Min 8 | 57.957 | 45.920, 69.994 |
| Min 9 | 65.226 | 53.189, 77.262 |
| Min 10 | 86.012 | 73.975, 98.049 |
| Min 11 | 89.942 | 77.905, 101.979 |
| Min 12 | 99.331 | 87.294, 111.368 |
| Min 13 | 96.411 | 84.374, 108.448 |
| Min 14 | 78.597 | 66.560, 90.633 |
| Min 15 | 56.596 | 44.559, 68.632 |
| Min 16 | 41.948 | 29.911, 53.985 |
| Min 17 | 34.248 | 22.211, 46.285 |
| Min 18 | 31.123 | 19.086, 43.160 |
| Min 19 | 28.574 | 16.538, 40.611 |
| Min 20 | 27.162 | 15.125, 39.199 |
| Min 21 | 25.708 | 13.671, 37.745 |
| Cooling | -3.849 | -7.738, 0.039 |
| Time x cooling |  |  |
| Random effects |  |  |
| Horse | 1.970 | 0.448, 8.663 |

CI: Confidence interval.