**Supplementary Table 1.** Delta check limits at 95% of absolute values and 2.5% and 97.5% values for delta difference and delta percent check, for each sex

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test item, unit | Group | Sex | N | Delta difference(DD) |  | Delta percent change(DPC) |
| **absDD, 95%** | **P** | **DD, 2.5%** | **DD, 97.5%** |  | **absDPC, 95%** | **P** | **DPC, 2.5%** | **DPC, 97.5%** |
| ACTH, pmol/L | IE | All |  | 25.0 |  | - 23.2 | 25.5 |  | 792.9 |  | - 92.6 | 1124.3 |
| IE | M | 386 | 25.2 | 0.760 | - 19.7 | 28.0 |  | 680.3 | 0.975 | - 92.5 | 1054.0 |
| IE | F | 447 | 23.5 |  | - 26.6 | 22.4 |  | 818.6 |  | - 92.7 | 1205.5 |
| O | All |  |  |  | - 9.5 | 9.9 |  | 316.9 |  | - 80.2 | 586.8 |
| O | M | 619 | 11.6 | 0.003 | - 11.7 | 11.2 |  | 353.5 | 0.717 | - 83.7 | 664.3 |
| O | F | 1054 | 8.3 |  | - 8.4 | 8.3 |  | 307.4 |  | - 79.0 | 563.2 |
| Cortisol, nmol/L | IE | All |  | 1033.5 |  | - 853.3 | 1338.9 |  | 873.5 |  | - 91.0 | 1904.3 |
| IE | M | 698 | 1087.9 | 0.444 | - 756.9 | 1712.9 |  | 1053.0 | 0.045 | - 90.8 | 2196.7 |
| IE | F | 740 | 1000.4 |  | - 945.2 | 1126.1 |  | 757.6 |  | - 93.0 | 1431.3 |
| O | All |  | 411.6 |  | - 433.2 | 393.7 |  | 625.8 |  | - 93.4 | 1087.6 |
| O | M | 1116 | 443.0 | 0.074 | - 447.5 | 436.8 |  | 700.0 | 0.161 | - 94.1 | 1314.4 |
| O | F | 1772 | 389.0 |  | - 410.9 | 368.5 |  | 503.4 |  | - 93.0 | 1087.6 |
| PTH, pmol/L | IE | All |  | 22.8 |  | - 27.3 | 16.4 |  | 116.5 |  | - 92.1 | 218.7 |
| IE | M | 299 | 31.7 | 0.052 | - 29.9 | 35.4 |  | 190.4 | 0.306 | - 92.0 | 400.6 |
| IE | F | 586 | 16.2 |  | - 22.9 | 10.2 |  | 96.1 |  | - 91.7 | 162.0 |
| O | All |  | 29.9 |  | - 30.6 | 29.2 |  | 125.0 |  | - 67.4 | 225.7 |
| O | M | 4437 | 29.7 | 0.274 | - 29.7 | 29.9 |  | 124.0 | 0.680 | - 67.6 | 212.2 |
| O | F | 7535 | 30.2 |  | - 31.7 | 28.9 |  | 125.6 |  | - 67.3 | 228.7 |
| Prolactin, μg/L | IE | All |  | 119.3 |  | - 112.4 | 129.8 |  | 328.4 |  | - 86.4 | 516.4 |
| IE | M | 398 | 59.3 | < 0.001 | - 59.9 | 58.1 |  | 209.4 | <0.001 | - 84.6 | 336.7 |
| IE | F | 783 | 146.0 |  | - 131.2 | 151.7 |  | 386.9 |  | - 87.3 | 674.8 |
| O | All |  | 78.2 |  | - 105.0 | 55.0 |  | 202.8 |  | - 89.5 | 510.5 |
| O | M | 504 | 37.7 | < 0.001 | - 45.0 | 30.1 |  | 221.3 | 0.564 | - 84.5 | 635.1 |
| O | F | 1808 | 90.4 |  | - 113.9 | 57.4 |  | 196.1 |  | - 90.0 | 501.1 |
| Insulin, pmol/L | O | All |  | 109.6 |  | - 112.3 | 92.2 |  | 135.3 |  | - 71.7 | 189.6 |
| O | M | 2076 | 99.7 | 0.106 | - 92.1 | 107.6 |  | 144.9 | 0.115 | - 67.5 | 202.2 |
| O | F | 1271 | 124.1 |  | - 189.0 | 74.7 |  | 111.5 |  | - 77.9 | 157.5 |
| Testosterone, nmol/L | O | All |  | 5.6 |  | - 5.8 | 6.3 |  | 188.9 |  | - 85.9 | 413.4 |
| O | M | 2335 | 6.4 | < 0.001 | - 6.3 | 6.6 |  | 197.3 | 0.904 | - 87.7 | 418.2 |
| O | F | 155 | 0.3 |  | - 0.3 | 0.3 |  | 160.0 |  | - 79.0 | 235.8 |
| Thyroglobulin, μg/L | O | All |  | 20.8 |  | - 29.5 | 13.3 |  | 207.9 |  | - 89.8 | 420.8 |
| O | M | 1768 | 20.5 | 0.212 | - 32.6 | 13.7 |  | 266.5 | 0.068 | - 91.5 | 565.0 |
| O | F | 5224 | 21.0 |  | - 28.6 | 13.0 |  | 200.0 |  | - 88.2 | 388.1 |

Statistical significance for delta check limits was determined using the quantile regression between male and female. P < 0.05 was considered statistically significant. Delta check limits in this table were calculated with the development set only. IE - inpatients/emergency. O - outpatients. M - males. F - females.