Supplementary Material

**Training loads and practices of competitive organ-recipients at the British and World Transplant Games.**

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**Supplementary Table 1.** Frequency of transplant type within each main sporting discipline.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | Total | Heart | Kidney | Liver | Lung | Stem cell | Pancreas | Heart and Lung | Kidney and pancreas |
| Total n (%)  | 218 | 35 (16%) | 95 (44%) | 48 (22%) | 11 (5%) | 21 (10%) | 1 (<1%) | 4 (2%) | 3 (1%) |
| Track  | 51 | 10 (20%) | 16 (31%) | 14 (27%) | 2 (4%) | 7 (14) | - | 1 (2%) | 1 (2%) |
| Field  | 30 | 8 (27%) | 9 (30%) | 4 (13%) | 2 (7%) | 5 (17%) | - | 1 (3%) | 1 (3%) |
| Cycling  | 16 | 7 (44%) | 7 (44%) | - | - | 1 (6%) | 1 (6%) | - | - |
| Swimming  | 26 | 2 (8%) | 12 (46%) | 9 (35%) | 2 (8%) | 1 (4%) | - | - | - |
| Court-based | 70 | 5 (7%) | 37 (53%) | 17 (24%) | 5 (7%) | 5 (7%) | - | 1 (1%) | - |
| HPD  | 6 | - | 3 (50%) | 1 (17%) | - | 1 (17%) | - | 1 (17%) | - |
| LPH  | 19 | 3 (16%) | 11 (58%) | 3 (16%) | - | 1 (5%) | - | - | 1(5%) |

NB: N=3 participants excluded as they did not identify a main sport.

**Supplementary Table 2.** Training characteristics of TxA’s for a representative in-season training week. Specific sessions for each discipline are highlighted. RPE = Rating of Perceived Exertion, Min = minutes, Frq = Training frequency - number of training sessions per wk, N = number of athletes, TL = weekly training load.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number of Athletes** | **All Athletes** | **Track Athletes** | **Field Athletes** | **Cycling Athletes** |
| **n =218** | **n =51** | **n =30** | **n =16** |
| **Session type** | RPE | Min | Frq | N | TL | RPE | Min | Frq | N | TL | RPE | Min | Frq | N | TL | RPE | Min | Frq | N | TL |
| **Resistance training (Gym)** | *4* | *90* | *3* | *52* | *1096 +1758* | 5 | 45 | 2 | 24 | 822 +986 | 6 | 75 | 4 | 21 | 1904 +3190 | 6 | 75 | 2 | 7 | 874 +926 |
| **Aerobic session (Gym)** | *4* | *75* | *3* | *34* | *886 +791* | 5 | 60 | 3 | 15 | 1151 +1024 | 5 | 45 | 3 | 14 | 927 +898 | 6 | 60 | 2 | 5 | 852 +856 |
| **Aerobic classes (Gym)** | *5* | *75* | *2* | *11* | *783 +783* | 3 | 90 | 3 | 5 | 978 +1280 | 1 | 75 | 1 | 3 | 540 +393 | 8 | 60 | 3 | 3 | 1345 +474 |
| **Sprint distance track sessions** | *4* | *90* | *2* | *22* | *1003 +874* | 7 | 75 | 2 | 14 | 1224 +1035 | 6 | 60 | 2 | 6 | 675 +606 | 4 | 75 | 2 | 2 | 450 +212 |
| **Middle distance track sessions** | *4* | *90* | *2* | *18* | *904 +1195* | 7 | 75 | 2 | 14 | 1258 +1580 | 5 | 45 | 2 | 4 | 356 +236 |  -  |  -  |  -  |  -  |  -  |
| **Long distance track sessions** | *4* | *90* | *3* | *15* | *731 +440* | 6 | 60 | 2 | 14 | 768 +456 | 7 | 45 | 1 | 1 | 315 |  -  |  -  |  -  |  -  |  -  |
| **Jump sessions** | *4* | *90.* | *3* | *5* | *1273 +1213* | 5 | 45 | 1 | 2 | 195 +106 | 5 | 60 | 3 | 3 | 980 +900 |  -  |  -  |  -  |  -  |  -  |
| **Throwing sessions** | *4* | *75* | *3* | *20* | *1325 +3091* | 3 | 90 | 1 | 2 | 248 +159 | 5 | 60 | 3 | 18 | 1658 +3655 |  -  |  -  |  -  |  -  |  -  |
| **Sprint distance cycling**  | *3* | *105* | *2* | *10* | *686 +523* | 7 | 60 | 2 | 3 | 720 +668 |  -  |  -  |  -  |  -  |  -  | 8 | 60 | 2 | 7 | 741 +532 |
| **Middle distance cycling**  | *5* | *75* | *3* | *19* | *1182 +1516* | 4 | 90 | 2 | 5 | 726 +664 |  -  |  -  |  -  |  -  |  -  | 6 | 90 | 3 | 14 | 1782 +1897 |
| **Long distance cycling** | *8* | *75* | *2* | *9* | *1102 +1127* | 5 | 120 | 1 | 3 | 725 +439 |  -  |  -  |  -  |  -  |  -  | 5 | 150 | 2 | 6 | 1800 +1371 |
| **Sprint distance swimming** | *4* | *90* | *3* | *7* | *797 +542* | 6 | 30 | 1 | 1 | 180 | 6 | 60 | 3 | 4 | 874 +741 | 6 | 75 | 3 | 2 | 1163 +1008 |
| **Middle distance swimming** | *4* | *75* | *2* | *7* | *536 +539* | 4 | 75 | 1 | 5 | 294 +258 | 3 | 45 | 2 | 1 | 270 | 6 | 75 | 1 | 1 | 450 |
| **Long distance swimming** | *4* | *60* | *2* | *1* | *429 +285* | 3 | 60 | 1 | 1 | 180 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| **Court-based sessions** | *5* | *90* | *3* | *8* | *1512 +2324* | 4 | 75 | 5 | 1 | 1500 | 4 | 45 | 1 | 4 | 150 +77 | 4 | 90 | 1 | 3 | 470 +321 |
| **Other** | *5* | *75* | *3* | *19* | *720 +720* | 5 | 60 | 3 | 12 | 820 +852 | 4 | 60 | 3 | 3 | 530 +165 | 7 | 30 | 4 | 4 | 465 +209 |
| **Athlete cumulative load** | *2762 +3583* | 2547 +2664 | 3671 +6189 | 4383 +4005 |
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| **Number of Athletes** | **Swimming Athletes** | **Court-based Athletes** | **High physiological demand sports (HPD)** | **Low physiological demand sports (LPD)** |
| **n =26** | **n =70** | **n =6** | **n =19** |
| **Session type** | RPE | Min | Frq | N | TL | RPE | Min | Frq | N | TL | RPE | Min | Frq | N | TL | RPE | Min | Frq | N | TL |
| **Resistance training (Gym)** | 6 | 60 | 2 | 9 | 726 +581 | 5 | 60 | 3 | 25 | 1015 +1116 | 4 | 60 | 2 | 2 | 623 +711 | 5 | 45 | 2 | 5 | 564 +407 |
| **Aerobic session (Gym)** | 6 | 60 | 3 | 4 | 855 +687 | 6 | 60 | 3 | 21 | 814 +642 | 5 | 60 | 2 | 4 | 510 +369 | 4 | 45 | 2 | 2 | 390 +297 |
| **Aerobic classes (Gym)** | 2 | 60 | 1 | 1 | 90 | 5 | 60 | 2 | 6 | 578 +423 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| **Sprint distance track sessions** | 6 | 105 | 2 | 1 | 1260 | 5 | 45 | 3 | 4 | 791 +874 | 5 | 75 | 3 | 1 | 1575 |  -  |  -  |  -  |  -  |  -  |
| **Middle distance track sessions** | 8 | 60 | 2 | 2 | 638 +456 | 5 | 60 | 3 | 4 | 780 +159 | 7 | 60 | 1 | 2 | 368 +329 | 8 | 60 | 1 | 1 | 480 |
| **Long distance track sessions** |  -  |  -  |  -  |  -  |  -  | 4 | 105 | 4 | 1 | 630 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| **Jump sessions** |  -  |  -  |  -  |  -  |  -  | 10 | 30 | 4 | 1 | 2700 | 8 | 90 | 3 | 1 | 2880 |  -  |  -  |  -  |  -  |  -  |
| **Throwing sessions** | 3 | 15 | 1 | 1 | 45 | 3 | 60 | 5 | 3 | 1125 +1366 | 3 | 45 | 2 | 1 | 270 | 7 | 60 | 1 | 1 | 420 |
| **Sprint distance cycling**  |  -  |  -  |  -  |  -  |  -  | 9 | 45 | 5 | 1 | 810 | 5 | 30 | 2 | 1 | 75 |  -  |  -  |  -  |  -  |  -  |
| **Middle distance cycling**  | 6 | 45 | 1 | 2 | 225 +21 | 7 | 45 | 3 | 3 | 500 +308 | 4 | 60 | 2 | 2 | 330 +212 | 6 | 60 | 2 | 1 | 720 |
| **Long distance cycling** |  -  |  -  |  -  |  -  |  -  | 6 | 90 | 4 | 1 | 540 | 3 | 75 | 1 | 2 | 203 +32 |  -  |  -  |  -  |  -  |  -  |
| **Sprint distance swimming** | 7 | 75 | 2 | 16 | 848 +465 | 3 | 45 | 4 | 2 | 420 +424 | 4 | 45 | 2 | 1 | 360 |  -  |  -  |  -  |  -  |  -  |
| **Middle distance swimming** | 6 | 60 | 2 | 15 | 780 +652 | 4 | 45 | 2 | 4 | 199 +110 | 4 | 45 | 2 | 5 | 387 +402 |  -  |  -  |  -  |  -  |  -  |
| **Long distance swimming** | 5 | 75 | 2 | 6 | 597 +220 | 2 | 30 | 5 | 1 | 120 | 2 | 75 | 1 | 1 | 150 |  -  |  -  |  -  |  -  |  -  |
| **Court-based sessions** | 5 | 60 | 2 | 2 | 390 +212 | 6 | 90 | 3 | 50 | 1863 +2584 | 6 | 15 | 1 | 1 | 90 | 4 | 75 |  -  | 6 | 630 +784 |
| **Other** | 4 | 75 | 1 | 2 | 248 +159 | 6 | 60 | 3 | 6 | 905 +1009 | 5 | 75 | 3 | 3 | 1050 +1074 | 3 | 120 | 2 | 6 | 564 +336 |
| **Athlete cumulative load** | 2051 +1047 | 2645 +3308 | 2595 +2247 | 1182 +801 |