**Supplementary Tables**

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| Supplementary Table 1  Patient distribution across the study centers | | |
| **Site Number** | **Country** | **N** |
| 10001 | USA | 7 |
| 10003 | USA | 5 |
| 10006 | USA | 5 |
| 10008 | USA | 1 |
| 10010 | USA | 3 |
| 10011 | USA | 5 |
| 10014 | USA | 4 |
| 10015 | USA | 3 |
| 10019 | USA | 5 |
| 10021 | USA | 2 |
| 10025 | USA | 8 |
| 10029 | USA | 3 |
| 10030 | USA | 9 |
| 10035 | USA | 1 |
| 10039 | USA | 1 |
| 10040 | USA | 1 |
| 11301 | CANADA | 1 |
| 12901 | HUNGARY | 8 |
| 14303 | PHILIPPINES | 3 |
| 14306 | PHILIPPINES | 1 |
| 14401 | POLAND | 14 |
| 14402 | POLAND | 1 |
| 14406 | POLAND | 8 |
| 14407 | POLAND | 32 |
| 14408 | POLAND | 17 |
| 14410 | POLAND | 5 |
| 14411 | POLAND | 2 |
| 14801 | TURKEY | 2 |
| 15901 | SOUTH KOREA | 15 |
| 15902 | SOUTH KOREA | 1 |
| 15903 | SOUTH KOREA | 6 |
| 15904 | SOUTH KOREA | 8 |
| 15905 | SOUTH KOREA | 13 |
| 15906 | SOUTH KOREA | 5 |
| 16401 | RUSSIA | 11 |
| 16402 | RUSSIA | 4 |
| 16403 | RUSSIA | 6 |
| 16501 | THAILAND | 6 |
| 16502 | THAILAND | 1 |
| 16503 | THAILAND | 1 |

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| Supplementary Table 2  Number of onabotulinumtoxinA units per kg, maximum dose, and number of injection sites by muscle | | | | | | | |
|  | OnabotulinumtoxinA  3 U/kg | | OnabotulinumtoxinA  6 U/kg | | Placebo | |  |
| Upper limb muscle | Dose per muscle (U/kg) | Maximum dose per muscle (U) | Dose per muscle  (U/kg) | Maximum dose per muscle (U) | Dose per muscle (U/kg) | Maximum dose per muscle (U) | No. injection sites |
| Elbow flexor muscle group | |  |  |  |  |  |  |
| Biceps | 1.5 | 50 | 3.0 | 100 | 0 | 0 | 4 |
| Brachialis | 1.0 | 30 | 2.0 | 60 | 0 | 0 | 2 |
| Brachioradialis | 0.5 | 20 | 1.0 | 40 | 0 | 0 | 2 |
| Wrist flexor muscle group | |  |  |  |  |  |  |
| Flexor carpi ulnaris | 1.0 | 25 | 2.0 | 50 | 0 | 0 | 2 |
| Flexor carpi radialis | 1.0 | 25 | 2.0 | 50 | 0 | 0 | 2 |
| Finger flexor muscle group | |  |  |  |  |  |  |
| Flexor digitorum profundus | 0.5 | 25 | 1.0 | 50 | 0 | 0 | 2 |
| Flexor digitorum superficialis | 0.5 | 25 | 1.0 | 50 | 0 | 0 | 2 |
| Total maximum dose for the principal muscle group | 3.0  (not to exceed 100 U) | | 6.0  (not to exceed 200 U) | | 0 | |  |

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| Supplementary Table 3  Measures in the overall principal muscle group | | | |
| ***Change from baseline in MAS score of the principal muscle group*** | | | |
|  | OnabotulinumtoxinA  6 U/kg (*n* = 77) | OnabotulinumtoxinA  3 U/kg (*n* = 78) | Placebo (*n* = 79) |
| **Baseline**  Mean ± SD | 3.3 ± 0.45 | 3.3 ± 0.45 | 3.3 ± 0.44 |
| **Weeks 4 & 6**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | −1.9 ± 0.98  −1.87 (0.102)  −0.66 (0.142)  −0.938, −0.379  <0.001 | −1.9 ± 0.97  −1.92 (0.101)  −0.71 (0.143)  −0.992, −0.426  <0.001 | −1.2 ± 0.85  −1.21 (0.102) |
| **Week 2**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | −1.7 ± 1.12  −1.70 (0.112)  −0.58 (0.157)  −0.886, −0.268  <0.001 | −1.8 ± 1.06  −1.86 (0.112)  −0.75 (0.158)  −1.057, −0.434  <0.001 | -1.1 ± 0.87  -1.12 (0.112) |
| **Week 4**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | −1.9 ± 1.02  −1.92 (0.107)  −0.71 (0.149)  −1.006, −0.417  <0.001 | −1.9 ± 1.06  −1.93 (0.107)  −0.73 (0.151)  −1.025, −0.429  <0.001 | −1.2 ± 0.89  −1.21 (0.107) |
| **Week 6**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | −1.8 ± 1.00  −1.83 (0.110)  −0.61 (0.153)  −0.908, −0.303  <0.001 | −1.9 ± 0.99  −1.92 (0.109)  −0.69 (0.154)  −0.996, −0.387  <0.001 | −1.2 ± 0.97  −1.22 (0.110) |
| **Week 8**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | −1.7 ± 0.95  −1.71 (0.098)  −0.55 (0.136)  −0.816, −0.280  <0.001 | −1.8 ± 0.86  −1.83 (0.098)  −0.67 (0.138)  −0.941, −0.397  <0.001 | −1.1 ± 0.87  −1.16 (0.098) |
| **Week 12**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | −1.1 ± 1.01  −1.14 (0.106)  −0.41 (0.147)  −0.702, −0.123  0.005 | −1.2 ± 0.97  −1.21 (0.105)  −0.48 (0.148)  −0.774, −0.192  0.001 | −0.7 ± 0.79  −0.73 (0.105) |
| ***MAS score: proportion of responders achieving ≥1-grade reduction from baseline*** | | | |
| **Week 2**  *p*-value | 62/77 (80.5)  0.140 | 69/78 (88.5)  0.004 | 55/77 (71.4) |
| **Week 4**  *p*-value | 70/77 (90.9)  0.002 | 67/76 (88.2)  0.008 | 58/78 (74.4) |
| **Week 6**  *p*-value | 64/74 (86.5)  0.031 | 70/78 (89.7)  0.007 | 56/76 (73.7) |
| **Week 8**  *p*-value | 70/77 (90.9)  0.002 | 72/77 (93.5)  <0.001 | 58/78 (74.4) |
| **Week 12**  *p*-value | 49/75 (65.3)  0.293 | 58/78 (74.4)  0.024 | 44/79 (55.7) |
| ***CGI by Physician*** |  |  |  |
| **Weeks 4 & 6**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 2.0 ± 1.01  1.87 (0.108)  0.21 (0.150)  −0.082, 0.511  0.155 | 1.9 ± 1.07  1.88 (0.108)  0.22 (0.153)  −0.079, 0.523  0.147 | 1.7 ± 1.12  1.66 (0.108) |
| **Week 2**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.8 ± 1.15  1.75 (0.125)  0.32 (0.174)  −0.021, 0.666  0.066 | 1.7 ± 1.36  1.71 (0.124)  0.27 (0.176)  −0.073, 0.622  0.121 | 1.5 ± 1.13  1.43 (0.125) |
| **Week 4**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.9 ± 1.10  1.83 (0.115)  0.21 (0.160)  −0.103, 0.528  0.186 | 1.8 ± 1.12  1.81 (0.115)  0.19 (0.163)  −0.132, 0.509  0.247 | 1.6 ± 1.14  1.62 (0.115) |
| **Week 6**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 2.0 ± 1.01  1.91 (0.116)  0.22 (0.161)  −0.100, 0.534  0.179 | 2.0 ± 1.11  1.95 (0.115)  0.26 (0.163)  −0.065, 0.576  0.118 | 1.7 ± 1.23  1.69 (0.115) |
| **Week 8**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.9 ± 1.12  1.84 (0.117)  0.11 (0.164)  −0.213, 0.432  0.505 | 1.9 ± 1.05  1.86 (0.117)  0.12 (0.166)  −0.206, 0.448  0.467 | 1.8 ± 1.23  1.73 (0.117) |
| **Week 12**  Mean ± SD  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.7 ± 1.22  1.62 (0.124)  0.28 (0.172)  −0.060, 0.620  0.106 | 1.8 ± 1.12  1.74 (0.123)  0.40 (0.174)  0.061, 0.746  0.021 | 1.4 ± 1.36  1.34 (0.123) |
| ***CGI by Physician: responders with a score ≥ +1, n (%)*** | | | |
| **Week 2**  *p*-value | 65/77 (84.4)  0.127 | 66/78 (84.6)  0.081 | 59/77 (76.6) |
| **Week 4**  *p*-value | 67/77 (87.0)  0.118 | 68/76 (89.5)  0.026 | 62/78 (79.5) |
| **Week 6**  *p*-value | 67/74 (90.5)  0.031 | 72/78 (92.3)  0.005 | 62/76 (81.6) |
| **Week 8**  *p*-value | 68/77 (88.3)  0.119 | 69/77 (89.6)  0.043 | 62/78 (79.5) |
| **Week 12**  *p*-value | 62/75 (82.7)  0.111 | 70/78 (89.7)  0.015 | 57/79 (72.2) |
| ***Exploratory post hoc analysis: CGI by Physician in participants with baseline MAS in the untreated non-principal muscle group of <2 (mild/no spasticity)*** | | | |
|  | 6 U/kg  (*n* = 46) | 3 U/kg  (*n* = 45) | Placebo (*n* = 43) |
| **Week 4 & 6**  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.92 (0.132)  0.53 (0.188)  0.154, 0.900  0.006 | 1.97 (0.137)  0.58 (0.185)  0.209, 0.943  0.002 | 1.40 (0.138) |
| **Week 2**  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.81 (0.161)  0.64 (0.231)  0.184, 1.098  0.006 | 1.69 (0.166)  0.52 (0.229)  0.068, 0.974  0.025 | 1.17 (0.168) |
| **Week 4**  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.90 (0.141)  0.56 (0.202)  0.156, 0.954  0.007 | 1.85 (0.146)  0.50 (0.199)  0.107, 0.896  0.013 | 1.35 (0.147) |
| **Week 6**  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.94 (0.145)  0.50 (0.206)  0.090, 0.906  0.017 | 2.09 (0.149)  0.65 (0.203)  0.248, 1.052  0.002 | 1.44 (0.150) |
| **Week 8**  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.92 (0.153)  0.38 (0.219)  −0.054, 0.816  0.085 | 1.95 (0.158)  0.41 (0.217)  −0.025, 0.836  0.065 | 1.54 (0.160) |
| **Week 12**  LS mean (SE)  Difference (SE)  95% CI  *p*-value | 1.75 (0.159)  0.49 (0.227)  0.041, 0.940  0.033 | 1.85 (0.163)  0.59 (0.225)  0.146, 1.036  0.010 | 1.26 (0.165) |

CGI: Clinical Global Impression of Change, CI: confidence interval, MAS: Modified Ashworth Scale-Bohannon, SE: standard error.

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| Supplementary Table 4  Change from baseline in measures according to individual principal muscle group | | | | | | | | | |
| *Change from baseline MAS score of change from baseline by visit by individual principal muscle group (MMRM, observed data, mITT population)a* | | | | | | | | | |
| Visit | Elbow principal muscle groupb | | | Wrist principal muscle groupb | | | Finger muscle groupc | | |
| OnabotulinumtoxinA | | Placebo  (*n* = 48) | OnabotulinumtoxinA | | Placebo  (*n* =31) | OnabotulinumtoxinA | |  |
| 6 U/kg  (*n* = 48) | 3 U/kg  (*n* = 48) | 6 U/kg  (*n* = 29) | 3 U/kg  (*n* = 30) | 6 U/kg  (*n* = 29) | 3 U/kg  (*n*= 30) | Placebo  (*n* = 31) |
| Baseline, mean (SD) | 3.3 (0.48) | 3.3 (0.47) | 3.3 (0.47) | 3.2 (0.41) | 3.2 (0.41) | 3.2 (0.40) | 2.7 (0.77) | 2.5 (0.73) | 2.7 (0.82) |
| Week 4 & 6  Mean ± SD  LS mean  (SE)  Difference (SE)  95% CI  *p*-value | −1.9 ± 0.91  −1.99  (0.126)  −0.71 (0.179)  −1.067,  −0.358  <0.001 | −1.9 ± 0.92  −1.89 (0.126)  −0.61 (0.179)  −0.960,  −0.253  <0.001 | −1.3 ± 0.81  −1.28 (0.128) | −1.8 ± 1.08  −1.76 (0.196)  −0.59 (0.257)  −1.106,  −0.083  0.023 | −2.0 ± 1.05  -1.96 (0.184)  −0.79 (0.263)  −1.320,  −0.270  0.003 | −1.1 ± 0.91  −1.16  (0.181) | −1.3 ± 0.98  −1.41 (0.184)  −0.39 (0.239)  −0.861, 0.091  0.111 | −1.4 ± 1.13  −1.46 (0.169)  −0.44 (0.247)  −0.933, 0.051  0.078 | −1.0 ± 0.89  −1.02 (0.170) |
| Week 2  Mean ± SD  LS mean  (SE)  Difference (SE)  95% CI | −1.8 ± 1.14  −1.87 (0.147)  −0.65 (0.210)  −1.066,  −0.235 | −1.8 ± 1.03  −1.82 (0.147)  −0.60 (0.209)  −1.009,  −0.181 | −1.2 ± 0.90  −1.22 (0.150) | −1.4 ± 1.06  −1.48 (0.189)  −0.48 (0.247)  −0.970, 0.014 | −1.9 ± 1.11  −1.91 (0.178)  −0.90 (0.254)  −1.410,  −0.397 | −0.9 ± 0.81  −1.00  (0.174) | −1.1 ± 0.92  −1.21 (0.176)  −0.36 (0.226)  −0.811, 0.092 | −1.4 ± 1.28  −1.46 (0.165)  −0.61 (0.238)  −1.085,  −0.135 | −0.8 ± 0.76  −0.85 (0.160) |
| *p*-value | 0.002 | 0.005 |  | 0.057 | <0.001 |  | 0.117 | 0.013 |  |
| Week 4  Mean ± SD  LS mean  (SE)  Difference (SE)  95% CI | −2.0 ± 0.97  −2.04 (0.135)  −0.78 (0.192)  −1.155,  −0.396 | −1.9 ± 1.02  −1.89 (0.136)  −0.62 (0.192)  −1.003,  −0.245 | −1.2 ± 0.85  −1.26 (0.137) | −1.8 ± 1.09  −1.79 (0.203)  −0.63 (0.267)  −1.162,  −0.099 | −2.0 ± 1.11  −1.97 (0.191)  −0.81 (0.273)  −1.357,  −0.269 | −1.1 ± 0.96  −1.16  (0.188) | −1.3 ± 0.96  −1.27 (0.203)  −0.37 (0.266)  −0.902, 0.157 | −1.4 ± 1.27  −1.45 (0.191)  −0.55 (0.278)  1.103, 0.004 | −0.9 ± 1.06  −0.90 (0.189) |
| *p*-value | <0.001 | 0.001 |  | 0.021 | 0.004 |  | 0.165 | 0.052 |  |
| Week 6  Mean ± SD  LS mean  (SE)  Difference (SE)  95% CI | −1.9 ± 0.92  −1.94 (0.132)  −0.65 (0.188)  −1.021,  −0.278 | −1.9 ± 0.90  −1.88 (0.131)  −0.59 (0.186)  −0.957,  −0.219 | −1.3 ± 0.91  −1.29 (0.134) | −1.7 ± 1.12  −1.72 (0.213)  −0.56 (0.282)  −1.120, 0.003 | −2.0 ± 1.13  −1.94 (0.201)  -0.78 (0.287)  −1.348,  −0.205 | −1.1 ± 1.06  −1.16  (0.198) | −1.3 ± 1.08  −1.44 (0.188)  -0.38 (0.240)  −0.864, 0.094 | −1.4 ± 1.07  −1.48 (0.173)  -0.42 (0.250)  −0.920, 0.076 | −1.0 ± 0.89  −1.06 (0.170) |
| *p-value* | <0.001 | 0.002 |  | 0.051 | 0.008 |  | 0.114 | 0.095 |  |
| Week 8  Mean ± SD  LS mean  (SE)  Difference (SE)  95% CI  *p*-value | −1.8 ± 0.91  −1.79 (0.126)  −0.63 (0.178)  −0.983,  −0.277  <0.001 | −1.7 ± 0.83  −1.71 (0.125)  −0.55 (0.178)  −0.905,  −0.202  0.002 | −1.1 ± 0.90  −1.16 (0.127) | −1.6 ± 1.01  −1.65 (0.186)  −0.45 (0.243)  −0.932, 0.036  0.069 | −2.0 ± 0.89  −1.99 (0.175)  −0.78 (0.251)  −1.283,  −0.284  0.003 | −1.2 ± 0.83  −1.21  (0.171) | −1.2 ± 0.87  −1.21 (0.193)  −0.13 (0.253)  −0.633, 0.375  0.610 | −1.6 ± 1.15  −1.59 (0.182)  −0.51 (0.263)  −1.034, 0.013  0.056 | −1.1 ± 1.14  −1.08 (0.179) |
| Week 12  Mean ± SD  LS mean  (SE)  Difference (SE)  95% CI | −1.1 ± 0.93  −1.13 (0.123)  −0.38 (0.174)  −0.725,  −0.037 | −1.0 ± 0.85  −1.03 (0.121)  −0.28 (0.171)  −0.622, 0.057 | −0.7 ± 0.75  0.74  (0.123) | −1.2 ± 1.15  −1.24 (0.202)  −0.49 (0.265)  −1.023, 0.034 | −1.5 ± 1.07  −1.47 (0.191)  −0.73 (0.272)  −1.270,  −0.187 | −0.7 ± 0.87  −0.75  (0.186) | −1.1 ± 1.09  −1.06 (0.215)  −0.50 (0.277)  −1.054, 0.049 | −1.2 ± 1.22  −1.27 (0.202)  −0.71 (0.291)  −1.294, −0.135 | −0.6 ± 1.14  −0.55 (0.196) |
| *p*-value | 0.030 | 0.102 | - | 0.066 | 0.009 |  | 0.073 | 0.016 |  |
| *MTS: Dynamic contracture (R2−R1): LS mean (SE) change from baseline* | | | | | | | | | |
| Baseline Mean   ± SD | 65.0  ± 30.54 | −60.6  ± 27.88 | −63.1  ± 33.16 | 47.4  ± 24.93 | 49.5  ± 32.23 | 59.6  ± 28.04 |  | − | − |
| Week 2  Mean   ± SD  LS mean   (SE)  Difference   (SE)  95% CI  *p*-value | 37.2  ± 45.77  33.27  (5.246)  12.10  (7.674) −3.089, 27.293  0.117 | 28.8  ± 36.62  29.58  (5.268)  8.41  (7.639)  −6.717, 23.527  0.273 | 20.0  ± 43.77  21.17  (5.602) | −14.6  ± 28.19  −15.72 (4.096)  −6.13  (5.434)  −16.962, 4.706  0.263 | −24.5  ± 29.41  −24.20 (3.831)  −14.60 (5.638)  −25.846, −3.360  0.012 | −12.4  ± 21.86  −9.60  (3.877) |  | |  |  | | --- | --- | | − | − | |  |
| **Week 4**Mean   ± SD  LS mean   (SE)  Difference   (SE)  95% CI  *p*-value | 37.9 ± 39.45  31.49  (4.116)  14.71  (5.937)  2.958, 26.458  0.015 | 32.1  ± 34.27  28.63  (4.160)  11.85  (5.886)  0.203, 23.504  0.046 | 15.4  ± 38.12  16.78  (4.272) | −19.8  ± 33.78  −22.97 (4.965)  −10.64 (6.337)  −23.277, 1.996  0.098 | −24.2  ± 31.61  −25.43 (4.557)  −13.10 (6.602)  −26.260, 0.068  0.051 | −14.9  ± 31.90  −12.33  (4.447) |  | − | − |
| **Week 6**Mean   ± SD  LS mean   (SE)  Difference  (SE)  95% CI  *p*-value | 42.4  ± 38.79  37.62  (4.372)  20.97  (6.147)  8.801, 33.137)  <0.001 | 30.7  ± 37.42  28.00  (4.268)  11.35  (6.068)  −0.662, 23.362  0.064 | 16.9  ± 38.89  16.65  (4.408) | −21.5  ± 30.61  −24.33 (5.036)  −17.11 (6.479)  −30.031, −4.189  0.010 | −19.5  ± 34.99  −18.47 (4.641)  −11.25 (6.707)  −24.622, 2.131  0.098 | −11.6  ± 34.02  −7.22  (4.570) |  | – | – |
| **Week 8**Mean   ± SD  LS mean   (SE)  Difference   (SE)  95% CI  *p*-value | 37.3  ± 38.68  31.17  (4.238)  15.25  (6.028)  3.317, 27.178  0.013 | 25.7  ± 40.30  23.14  (4.188)  7.22  (5.917)  −4.488, 18.934  0.225 | 15.4  ± 39.56  15.92  (4.276) | −19.5  ± 31.48  20.87  (4.621)  −17.71 (6.106)  −29.888,  −5.537  0.005 | −19.8  ± 25.96  −18.90 (4.307)  −15.74 (6.294)  −28.293,  −3.194  0.015 | −5.9  ± 32.37  −3.16  (4.303) |  | – | – |
| **Week 12**Mean   ± SD  LS mean   (SE)  Difference   (SE)  95% CI  *p*-value | 16.7  ± 35.57  14.69  (3.828)  4.50  (5.425)  −6.239, 15.236  0.409 | 16.1  ± 26.87  14.06  (3.775)  3.86  (5.333)  −6.690, 14.419  0.470 | 8.2  ± 28.82  10.19  (3.854) | −16.5  ± 36.75  −16.87 (4.927)  −15.25 (6.400)  −28.010,  −2.492  0.020 | −17.0  ± 25.97  −15.14 (4.607)  −13.52 (6.660)  −26.797,  −0.243  0.046 | −4.1  ± 32.80  −1.62  (4.509) |  | – | – |
| aData are LS mean change from baseline (SE) unless otherwise indicated. b*p*-values for between-group comparisons were obtained from a MMRM model including baseline MAS score as a covariate and factors of principal muscle group, treatment group, visit, treatment-by-visit interaction, study center, and previous botulinum toxin exposure where principal muscle group is represented by stratification categories (elbow flexors and wrist flexors). c*p*-values for between-group comparisons were obtained from an ANCOVA model including baseline MAS score of finger flexor muscle group as a covariate and factors of age group, treatment group, study center, and previous botulinum toxin exposure where age group is represented by stratification categories (≤6 years and >6 years for age group). ANCOVA: analysis of covariance, CI: confidence interval, LS: least squares, MAS, Modified Ashworth Scale-Bohannon, mITT: modified intent-to-treat, MMRM: mixed model repeated measures, R1 fast range of motion, R2: slow range of motion, SD: standard deviation, SE: standard error. | | | | | | | | | |

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| Supplementary Table 5  Goal attainment scaling by Physician (observed data, mITT population) | | | | | | |
| Statistic | Active goal | | | Passive goal | | | |
| OnabotulinumtoxinA | | Placebo | OnabotulinumtoxinA | | Placebo | |
| 6 U/kg (*n* = 77) | 3 U/kg (*n* = 78) | (*n* = 79) | 6 U/kg (*n* = 77) | 3 U/kg (*n* = 78) | (*n* = 79) | |
| **Week 8** |  |  |  |  |  |  | |
| N | 75 | 76 | 77 | 75 | 76 | 77 | |
| Mean ± SD | 0.2 ± 1.32 | 0.1 ± 1.35 | 0.3 ± 1.15 | 0.4 ± 1.22 | 0.2 ± 1.38 | 0.1 ± 1.22 | |
| LS mean (SE) | 0.11 (0.148) | 0.12 (0.148) | 0.21 (0.148) | 0.30 (0.146) | 0.23 (0.146) | 0.06 (0.146) | |
| Difference (SE) | −0.10 (0.204) | −0.09 (0.208) |  | 0.24 (0.202) | 0.17 (0.206) |  | |
| 95% CIa | −0.498, 0.305 | −0.502, 0.318 |  | −0.162, 0.635 | −0.237, 0.576 |  | |
| *p*-value | 0.636 | 0.658 |  | 0.243 | 0.412 |  | |
| GAS ≥0, *n/*N (%) | 54/75 (72.0) | 45/76 (59.2) | 59/77 (76.6) | 58/75 (77.3) | 53/76 (69.7) | 53/77 (68.8) | |
| *p*-valueb | 0.387 | 0.030 |  | 0.213 | 0.569 |  | |
| GAS ≥−1, *n*/N (%) | 65/75 (86.7) | 69/76 (90.8) | 69/77 (89.6) | 69/75 (92.0) | 65/76 (85.5) | 68/77 (88.3) | |
| *p*-valueb | 0.488 | 0.743 |  | 0.496 | 0.863 |  | |
| GAS ≥+2, *n*/N (%) | 14/75 (18.7) | 16/76 (21.1) | 9/77 (11.7) | 17/75 (22.7) | 17/76 (22.4) | 10/77 (13.0) | |
| **Week 12** |  |  |  |  |  |  | |
| N | 73 | 78 | 79 | 72 | 78 | 79 | |
| Mean ± SD | 0.5 ± 1.34 | 0.3 ± 1.17 | 0.5 ± 1.14 | 0.7 ± 1.20 | 0.3 ± 1.27 | 0.1 ± 1.28 | |
| LS mean (SE) | 0.49 (0.143) | 0.26 (0.139) | 0.52 (0.139) | 0.71 (0.143) | 0.31 (0.139) | 0.11 (0.139) | |
| Difference (SE) | −0.02 (0.195) | −0.25 (0.197) |  | 0.59 (0.195) | 0.19 (0.196) |  | |
| 95% CIa | −0.408, 0.361 | −0.641, 0.135 |  | 0.210, 0.978 | −0.194, 0.580 |  | |
| *p*-value | 0.904 | 0.200 |  | 0.003 | 0.327 |  | |
| GAS ≥0, *n/N* (%) | 56/73 (76.7) | 57/78 (73.1) | 66/79 (83.5) | 62/72 (86.1) | 57/78 (73.1) | 52/79 (65.8) | |
| *p*-valueb | 0.341 | 0.170 |  | 0.001 | 0.075 |  | |
| GAS ≥−1, *n/N* (%) | 66/73 (90.4) | 75/78 (96.2) | 74/79 (93.7) | 67/72 (93.1) | 71/78 (91.0) | 70/79 (88.6) | |
| *p*-valueb | 0.863 | 0.309 |  | 0.133 | 0.429 |  | |
| GAS ≥+2, *n/N* (%) | 22/73 (30.1) | 17/78 (21.8) | 18/79 (22.8) | 24/72 (33.3) | 16/78 (20.5) | 14/79 (17.7) | |

a*p*-values and 95% confidence intervals for between-group comparisons were obtained from an ANCOVA model including baseline MAS score as a covariate and factors of age group, principal muscle group, treatment group, study center, and previous botulinum toxin exposure where age group and principal muscle group were represented by stratification categories (≤6 years and >6 years for age, elbow flexors and wrist flexors for designated principal muscle group). Estimated differences were based on the LS means.

b*p*-values were based on a logistic regression model with factors of age group, principal muscle group, treatment group, study center and previous botulinum toxin exposure where age group and principal muscle group were represented by stratification categories (≤6 years and >6 years for age group, elbow flexors

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| Supplementary Table 6  QUESTa Total Score change from baseline by visit (ANCOVA, observed data, mITT population) | | | |
|  | OnabotulinumtoxinA 6 U/kg (*n*=77) | OnabotulinumtoxinA 3 U/kg (*n*=78) | Placebo  (*n*=79) |
| **Baseline** |  |  |  |
| *N* | 77 | 78 | 79 |
| Mean (SD) | 63.8 (19.12) | 58.2 (19.29) | 65.1 (18.13) |
| **Week 8** |  |  |  |
| *N* | 72 | 75 | 70 |
| Mean (SD) | 70.1 (19.55) | 66.2 (18.53) | 73.9 (17.04) |
| Mean change from baseline (SD) | 5.9 (8.09) | 8.0 (8.34) | 7.7 (9.67) |
| LS mean change from baseline (SE) | 5.69 (0.980) | 7.14 (0.981) | 7.28 (1.025) |
| Difference (SE)  95% CI | −1.58 (1.385)  −4.315 to 1.147 | −0.14 (1.421)  −2.943 to 2.663 |  |
| *p*-valueb | 0.254 | 0.922 |  |
| **Week 12** |  |  |  |
| *N* | 70 | 71 | 71 |
| Mean (SD) | 73.2 (18.53) | 68.8 (18.43) | 72.4 (18.95) |
| Mean change from baseline (SD) | 9.0 (10.97) | 10.1 (8.63) | 8.7 (10.76) |
| LS mean change from baseline (SE) | 8.80 (1.129) | 9.68 (1.133) | 8.12 (1.123) |
| Difference (SE)  95% CI | 0.68 (1.568)  −2.411 to 3.773 | 1.56 (1.602)  −1.598 to 4.723 |  |
| *p*-valueb | 0.664 | 0.331 |  |
| aThe objective of the QUEST is to evaluate the quality of movement of the upper limbs. The QUEST comprised four domains: dissociated movements (64 items), grasp (24 items), weight bearing (50 items), and protective extension (36 items). Scores varied from below 0 to 100, and the total test score was the sum of all domain scores divided by the number of tested domains. QUEST was performed during an OT session before the clinic visit.  b*p*-values and 95% confidence intervals for between-group comparisons were obtained from an ANCOVA model including baseline QUEST total score as a covariate and factors of age group, principal muscle group, treatment group, study center and previous botulinum toxin exposure where age group and principal muscle group were represented by stratification categories (≤6 years and >6 years for age group, elbow flexors and wrist flexors for designated principal muscle group). Estimated differences are based on the least-square means. ANCOVA: analysis of covariance, CI: confidence interval, LS: least squares, mITT: modified intent-to-treat, QUEST: Quality of Upper Extremity Skills Test, SD: standard deviation, SE: standard error. | | | |