**Supplemental Table 2. Sensitivity Analysis of Each Outcome (Missing Values set as Non-responders)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Memantine ER/ChEI** | **Placebo/ChEI** | | | ***P*-valuea** |
| **Severe Impairment Battery** | N=338 | N=330 | | |  |
| **Weeks 8–24** |  |  | | |  |
| **≥0** | 122 | 130 | | | 0.3813 |
| **≥5** | 68 | 45 | | | **0.0300** |
| **≥10** | 38 | 20 | | | **0.0194** |
| **≥15** | 17 | 10 | | | 0.2390 |
| **≥20** | 5 | 4 | | | 1.0000 |
| **Weeks 12–24** |  |  | | |  |
| **≥0** | 141 | 141 | | | 0.8144 |
| **≥5** | 75 | 53 | | | **0.0493** |
| **≥10** | 43 | 22 | | | **0.0089** |
| **≥15** | 25 | 11 | | | **0.0251** |
| **≥20** | 12 | 5 | | | 0.1388 |
| **Weeks 18–24** |  |  | | |  |
| **≥0** | 157 | 149 | | | 0.7564 |
| **≥5** | 86 | 67 | | | 0.1184 |
| **≥10** | 50 | 27 | | | **0.0077** |
| **≥15** | 29 | 12 | | | **0.0094** |
| **≥20** | 14 | 6 | | | 0.1104 |
| **Neuropsychiatric Index** | N=221 | N=213 | |  | |
| **Weeks 8–24** |  |  | | |  |
| **≤ 0** | 85 | 82 | | | 1.0000 |
| **≤-3** | 56 | 38 | | | 0.0628 |
| **≤-6** | 38 | 29 | | | 0.3526 |
| **≤-9** | 30 | 21 | | | 0.2374 |
| **≤-12** | 22 | 13 | | | 0.1603 |
| **Weeks 12–24** |  |  | | |  |
| **≤ 0** | 98 | 92 | | | 0.8467 |
| **≤-3** | 68 | 53 | | | 0.1989 |
| **≤-6** | 52 | 38 | | | 0.1563 |
| **≤-9** | 40 | 27 | | | 0.1436 |
| **≤-12** | 27 | 20 | | | 0.3584 |
| **Weeks 18–24** |  |  | | |  |
| **≤ 0** | 108 | 103 | | | 0.9238 |
| **≤-3** | 75 | 63 | | | 0.3543 |
| **≤-6** | 58 | 46 | | | 0.2632 |
| **≤-9** | 48 | 36 | | | 0.2252 |
| **≤-12** | 36 | 26 | | | 0.2724 |
| **CIBIC-Plus** | N=337 | N=331 |  | | |
| **Weeks 8–24** |  |  | | |  |
| **≤1** | 0 | 1 | | | 0.4955 |
| **≤2** | 7 | 4 | | | 0.5456 |
| **≤3** | 48 | 28 | | | **0.0206** |
| **≤4** | 147 | 132 | | | 0.3468 |
| **≤5** | 226 | 218 | | | 0.7439 |
| **≤6** | 256 | 257 | | | 0.6470 |
| **Weeks 12–24** |  |  | | |  |
| **≤1** | 0 | 1 | | | 0.4955 |
| **≤2** | 17 | 8 | | | 0.1015 |
| **≤3** | 56 | 38 | | | 0.0592 |
| **≤4** | 162 | 142 | | | 0.1872 |
| **≤5** | 230 | 227 | | | 0.9339 |
| **≤6** | 259 | 265 | | | 0.3469 |
| **Weeks 18–24** |  |  | | |  |
| **≤1** | 3 | 4 | | | 0.7229 |
| **≤2** | 25 | 11 | | | **0.0249** |
| **≤3** | 68 | 48 | | | 0.0657 |
| **≤4** | 176 | 157 | | | 0.2170 |
| **≤5** | 239 | 234 | | | 1.0000 |
| **≤6** | 263 | 267 | | | 0.4447 |
| **Activities of Daily Living** | N=337 | N=331 |  | | |
| **Weeks 8–24** |  |  | | |  |
| **≤ 0** | 79 | 82 | | | 0.7179 |
| **≤-2** | 31 | 29 | | | 0.8928 |
| **≤-4** | 18 | 17 | | | 1.0000 |
| **≤-6** | 10 | 12 | | | 0.6701 |
| **≤-8** | 6 | 10 | | | 0.3226 |
| **Weeks 12–24** |  |  | | |  |
| **≤ 0** | 88 | 99 | | | 0.3012 |
| **≤-2** | 47 | 55 | | | 0.3896 |
| **≤-4** | 26 | 32 | | | 0.4108 |
| **≤-6** | 17 | 22 | | | 0.4122 |
| **≤-8** | 10 | 15 | | | 0.3140 |
| **Weeks 18–24** |  |  | | |  |
| **≤ 0** | 111 | 121 | | | 0.3308 |
| **≤-2** | 65 | 78 | | | 0.1875 |
| **≤-4** | 32 | 54 | | | **0.0107** |
| **≤-6** | 21 | 36 | | | **0.0374** |
| **≤-8** | 13 | 26 | | | **0.0317** |

a**BOLD** indicates significance at *P*<0.05.

ChEI, cholinesterase inhibitor; CIBIC-Plus, Clinician’s Interview-Based Impression of Change Plus Caregiver Input; Memantine ER, extended release memantine 28 mg/day.