

SUPPLEMENTARY MATERIALS

This supplemental material has been provided by the authors to give readers additional information about their work, which was presented in the following poster:

Impact of Amyotrophic Lateral Sclerosis Disease Progression on Health Care Resource Use and Health-Related Quality of Life using MiToS Staging and ALSFRS-R: Analysis of a Real-World Cross-Sectional Survey

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Supplemental Content

Supplementary Table S1. Patient characteristics by disease progression rates

Supplementary Table S2. HCRU and HRQoL by MiToS stage: overall study group

Supplementary Table S3. HCRU and HRQoL by MiToS stage: US subgroup

Supplementary Table S4. HCRU and HRQoL by MiToS stage: subgroup from Europe

Supplementary Table S5. HCRU and HRQoL for slow, intermediate, and fast progressors: overall group

Supplementary Table S6. HCRU and HRQoL for slow, intermediate, and fast progressors: US subgroup

Supplementary Table S7. HCRU and HRQoL for slow, intermediate and fast progressors: subgroup from Europe

Supplementary Figure S1. HCRU and HRQoL by MiToS stage

Supplementary Figure S2. HCRU and HRQoL by ALS progression rate

Supplementary Table S1. Patient characteristics by disease progression rate

| Characteristic | Slow (n=285) | Intermediate (n=287) | Fast (n=295) | P-value |
|---|-----------------|-------------------------|-----------------|---------|
| Age, mean (SD), y | 59.1 (11.1) | 61.3 (11.5) | 63.3 (10.3) | <0.0001 |
| Male, n (%) | 180 (63.2) | 174 (60.6) | 188 (63.7) | 0.7145 |
| White, n (%) | 250 (88.0) | 263 (91.6) | 259 (87.8) | 0.3313 |
| BMI, mean (SD), kg/m ² | 24.6 (5.4) | 24.1 (3.4) | 24.2 (3.5) | 0.3010 |
| ALSFRS-R total score, mean (SD) | 42.0 (6.6) | 33.8 (10.2) | 24.8 (11.8) | <0.0001 |
| Time since diagnosis, mean (SD), months | 26.3 (33.7) | 19.2 (16.1) | 12.7 (9.8) | <0.0001 |
| Time since 1st symptom, mean (SD), months | 37.8 (40.3) | 26.6 (18.5) | 18.0 (10.8) | <0.0001 |
| ALS site of onset: bulbar, n (%) | 48 (17.1) | 51 (17.8) | 70 (23.8) | <0.0001 |
| On riluzole alone, n (%) | 197 (69.1) | 189 (65.9) | 155 (52.5) | |
| On edaravone alone, n (%) | 32 (11.2) | 28 (9.8) | 33 (11.2) | 0.0003 |
| On riluzole plus edaravone, n (%) | 12 (4.2) | 23 (8.0) | 26 (8.8) | |

ALSFRS-R, ALS functional rating scale – revised; BMI, body mass index

Supplementary Table S2. HCRU and HRQoL by MiToS stage: overall study group

| Variable | Stage 0 | | Stage 1 | | Stage 2 | | Stage 3 | | Stage 4 | | Stage 4 vs 0 | Stage 3 vs 0 | Stage 2 vs 0 | Stage 1 vs 0 |
|--|---------|-------------------------|---------|-------------------------|---------|-------------------------|---------|-------------------------|---------|-------------------------|---|---|---|---|
| | n | Mean (95% CI) | Mean difference and 95% CI, P-value |
| Number of hospitalizations | 580 | 0.18 (0.14, 0.22) | 96 | 0.54 (0.38, 0.70) | 66 | 1.05 (0.76, 1.33) | 37 | 0.97 (0.62, 1.33) | 58 | 0.85 (0.59, 1.11) | 0.66 (0.44, 0.82) <0.001 | 0.79 (0.47, 1.11) <0.001 | 0.86 (0.62, 1.11) <0.001 | 0.36 (0.24, 0.48) <0.001 |
| Duration of hospitalization (nights) | 87 | 2.48 (1.87, 3.10) | 38 | 4.29 (2.45, 6.13) | 37 | 6.11 (3.56, 8.65) | 22 | 5.41 (2.73, 8.09) | 30 | 8.37 (5.15, 11.59) | 5.88 (3.28, 8.50) <0.001 | 2.93 (0.86, 5.00) 0.340 | 3.63 (0.58, 5.55) <0.001 | 1.81 (0.58, 3.03) 1.000 |
| Total HCP consultations (last 12 months) | 683 | 13.34 (12.06, 14.62) | 111 | 16.45 (13.00, 19.90) | 83 | 18.22 (13.57, 22.86) | 47 | 21.00 (14.82, 27.18) | 79 | 31.23 (12.88, 49.58) | 17.89 (0.82, 34.96) <0.001 | 7.66 (2.76, 12.56) 0.760 | 4.88 (1.51, 8.24) 1.000 | 3.11 (0.94, 5.28) 1.000 |
| Professional caregiver hours (per week) | 75 | 15.53 (12.51, 18.55) | 38 | 13.76 (9.90, 17.63) | 33 | 29.39 (18.39, 40.40) | 24 | 47.04 (29.40, 64.68) | 39 | 58.87 (41.84, 75.90) | 43.34 (29.33, 57.35) <0.001 | 31.51 (16.89, 46.13) <0.001 | 13.86 (5.88, 21.84) 0.325 | -1.77 (-2.62, -0.92) 1.000 |
| Total number of DME utilized | 683 | 1.43 (1.30, 1.56) | 111 | 3.41 (2.97, 3.86) | 83 | 5.00 (4.41, 5.59) | 47 | 5.34 (4.55, 6.13) | 79 | 5.84 (5.18, 6.49) | 4.41 (3.89, 4.93) <0.001 | 3.91 (3.25, 4.58) <0.001 | 3.57 (3.11, 4.04) <0.001 | 1.99 (1.67, 2.31) <0.001 |
| Number of mobility / supportive aids | 683 | 0.70 (0.64, 0.76) | 111 | 1.33 (1.18, 1.49) | 83 | 1.37 (1.19, 1.56) | 47 | 1.23 (0.90, 1.57) | 79 | 0.85 (0.66, 1.04) | 0.15 (0.02, 0.28) 1.000 | 0.53 (0.26, 0.80) <0.001 | 0.67 (0.55, 0.79) <0.001 | 0.63 (0.53, 0.73) <0.001 |
| Number of communication / functional aids | 683 | 0.14 (0.11, 0.18) | 111 | 0.57 (0.41, 0.73) | 83 | 0.74 (0.53, 0.94) | 47 | 0.77 (0.48, 1.05) | 79 | 1.01 (0.79, 1.24) | 0.87 (0.68, 1.06) <0.001 | 0.62 (0.37, 0.88) <0.001 | 0.59 (0.42, 0.76) <0.001 | 0.43 (0.30, 0.55) <0.001 |
| Number of therapeutic interventions / procedures | 683 | 0.40 (0.35, 0.44) | 111 | 0.83 (0.67, 0.99) | 83 | 1.58 (1.35, 1.81) | 47 | 1.79 (1.50, 2.07) | 79 | 2.37 (2.13, 2.61) | 1.97 (1.77, 2.16) <0.001 | 1.39 (1.15, 1.63) <0.001 | 1.18 (1.00, 1.37) <0.001 | 0.43 (0.31, 0.55) <0.001 |
| Number of respiratory aids | 683 | 0.18 (0.15, 0.22) | 111 | 0.69 (0.51, 0.86) | 83 | 1.31 (1.07, 1.56) | 47 | 1.55 (1.28, 1.83) | 79 | 1.61 (1.36, 1.85) | 1.42 (1.22, 1.63) <0.001 | 1.37 (1.14, 1.61) <0.001 | 1.13 (0.92, 1.34) <0.001 | 0.50 (0.37, 0.64) <0.001 |
| EQ-5D-5L utility ^a | 117 | 0.53 (0.48, 0.58) | 17 | 0.28 (0.14, 0.42) | 10 | -0.05 (-0.27, 0.17) | 8 | 0.01 (-0.30, 0.32) | 15 | 0.01 (-0.19, 0.21) | -0.52 (-0.67, -0.37) <0.001 | -0.52 (-0.78, -0.26) <0.001 | -0.58 (-0.75, -0.41) <0.001 | -0.25 (-0.33, -0.16) 0.012 |

^a Utility results were from US-based value set for the EQ-5D-5L

Supplementary Table S3. HCRU and HRQoL by MiToS stage: US subgroup

| Variable | Stage 0 | | Stage 1 | | Stage 2 | | Stage 3 | | Stage 4 | | Stage 4 vs 0 | Stage 3 vs 0 | Stage 2 vs 0 | Stage 1 vs 0 |
|--|---------|-------------------------|---------|-------------------------|---------|-------------------------|---------|-------------------------|---------|-------------------------|---|---|---|---|
| | n | Mean (95% CI) | Mean difference and 95% CI, <i>P</i> -value |
| Number of hospitalizations | 207 | 0.11 (0.05, 0.16) | 22 | 0.77 (0.34, 1.20) | 23 | 0.96 (0.44, 1.47) | 15 | 0.80 (0.13, 1.47) | 25 | 0.80 (0.41, 1.20) | 0.69 (0.35, 1.04) <0.001 | 0.69 (0.08, 1.31) 0.001 | 0.85 (0.39, 1.31) <0.001 | 0.67 (0.29, 1.05) <0.001 |
| Duration of hospitalization(s) | 18 | 0.39 (-0.07, 0.85) | 12 | 1.00 (0.10, 1.90) | 12 | 3.25 (-0.20, 6.70) | 7 | 2.86 (-0.78, 6.50) | 12 | 7.17 (2.32, 12.01) | 6.78 (2.39, 11.17) 0.001 | 2.47 (-0.71, 5.65) 1.000 | 2.86 (-0.13, 5.89) 0.878 | 0.61 (0.17, 1.05) 1.000 |
| Total HCP consultations (last 12 months) | 261 | 12.27 (10.74, 13.80) | 30 | 18.93 (12.38, 25.49) | 32 | 13.81 (7.04, 20.59) | 20 | 25.65 (13.13, 38.17) | 36 | 16.42 (8.98, 23.85) | 4.15 (-1.78, 10.06) 1.000 | 13.38 (2.39, 24.37) 0.003 | 1.54 (-3.70, 6.79) 1.000 | 6.67 (1.64, 11.69) 0.275 |
| Professional caregiver hours (per week) | 25 | 18.76 (11.74, 25.78) | 11 | 17.00 (5.10, 28.90) | 17 | 36.47 (15.48, 57.46) | 9 | 44.44 (21.44, 67.45) | 13 | 43.08 (18.53, 67.63) | 24.32 (6.783, 41.85) 0.212 | 25.68 (9.69, 41.68) 0.319 | 17.71 (3.74, 31.69) 0.660 | -1.76 (-6.65, 3.13) 1.000 |
| Total number of DME utilized | 261 | 1.79 (1.54, 2.05) | 30 | 5.43 (4.52, 6.35) | 32 | 5.94 (4.76, 7.11) | 20 | 5.60 (4.23, 6.97) | 36 | 5.47 (4.34, 6.60) | 3.68 (2.81, 4.55) <0.001 | 3.81 (2.70, 4.92) <0.001 | 4.14 (3.23, 5.06) <0.001 | 3.64 (2.99, 4.30) <0.001 |
| Number of mobility / supportive aids | 261 | 0.84 (0.74, 0.95) | 30 | 1.57 (1.19, 1.94) | 32 | 1.56 (1.23, 1.89) | 20 | 1.40 (0.80, 2.00) | 36 | 0.81 (0.42, 1.19) | -0.04 (-0.32, 0.24) 1.000 | 0.56 (0.07, 1.05) 0.115 | 0.72 (0.50, 0.94) 0.001 | 0.72 (0.46, 0.99) 0.001 |
| Number of communication / functional aids | 261 | 0.22 (0.15, 0.29) | 30 | 1.03 (0.67, 1.39) | 32 | 1.00 (0.59, 1.41) | 20 | 0.70 (0.22, 1.18) | 36 | 0.86 (0.51, 1.22) | 0.64 (0.36, 0.93) <0.001 | 0.48 (0.07, 0.90) 0.057 | 0.78 (0.44, 1.12) <0.001 | 0.81 (0.52, 1.11) <0.001 |
| Number of therapeutic interventions / procedures | 261 | 0.48 (0.40, 0.57) | 30 | 1.40 (1.08, 1.72) | 32 | 1.94 (1.49, 2.39) | 20 | 1.85 (1.41, 2.29) | 36 | 2.22 (1.83, 2.61) | 1.74 (1.43, 2.05) <0.001 | 1.37 (1.01, 1.72) <0.001 | 1.45 (1.09, 1.82) <0.001 | 0.92 (0.68, 1.15) <0.001 |
| Number of respiratory aids | 261 | 0.25 (0.18, 0.32) | 30 | 1.43 (1.05, 1.82) | 32 | 1.44 (0.96, 1.91) | 20 | 1.65 (1.21, 2.09) | 36 | 1.58 (1.18, 1.98) | 1.33 (1.01, 1.66) <0.001 | 1.40 (1.03, 1.77) <0.001 | 1.19 (0.78, 1.59) <0.001 | 1.18 (0.87, 1.50) <0.001 |
| EQ-5D-5L utility ^a | 27 | 0.53 (0.39, 0.67) | 3 | 0.43 (-0.43, 1.29) | 3 | 0.12 (-0.25, 0.48) | 4 | 0.28 (-0.24, 0.80) | 5 | 0.26 (-0.25, 0.77) | -0.27 (-0.64, 0.10) 1.000 | -0.25 (-0.63, 0.13) 1.000 | -0.41 (-0.64, -0.19) 0.610 | -0.10 (-0.82, 0.62) 1.000 |

^a Utility results were from US-based value set for the EQ-5D-5L

Supplementary Table S4. HCRU and HRQoL by MiToS stage: subgroup from Europe

| Variable | Stage 0 | | Stage 1 | | Stage 2 | | Stage 3 | | Stage 4 | | Stage 4 vs 0 | Stage 3 vs 0 | Stage 2 vs 0 | Stage 1 vs 0 |
|---|---------|-------------------------|---------|-------------------------|---------|-------------------------|---------|-------------------------|---------|-------------------------|---|---|---|---|
| | n | Mean (95% CI) | Mean difference and 95% CI, <i>P</i> -value |
| Number of hospitalizations | 373 | 0.22 (0.17, 0.27) | 74 | 0.47 (0.31, 0.64) | 43 | 1.09 (0.74, 1.45) | 22 | 1.09 (0.66, 1.52) | 33 | 0.88 (0.52, 1.24) | 0.66 (0.34, 0.97) <0.001 | 0.87 (0.49, 1.25) <0.001 | 0.87 (0.57, 1.17) <0.001 | 0.25 (0.14, 0.36) 0.032 |
| Duration of hospitalization(s) | 69 | 3.03 (2.31, 3.75) | 26 | 5.81 (3.32, 8.30) | 25 | 7.48 (4.08, 10.88) | 15 | 6.60 (2.95, 10.25) | 18 | 9.17 (4.51, 13.82) | 6.14 (2.20, 10.08) 0.002 | 3.57 (0.63, 6.51) 0.375 | 4.45 (1.77, 7.13) 0.017 | 2.78 (1.01, 4.55) 0.450 |
| Total HCP consultations (last 12 months) | 422 | 14.00 (12.16, 15.85) | 81 | 15.53 (11.40, 19.66) | 51 | 20.98 (14.67, 27.29) | 27 | 17.56 (11.52, 23.59) | 43 | 43.63 (10.32, 76.94) | 29.63 (-1.84, 61.09) <0.001 | 3.55 (-0.64, 7.74) 1.000 | 6.98 (2.52, 11.44) 1.000 | 1.53 (-0.75, 3.81) 1.000 |
| Professional caregiver hours (per week) | 50 | 13.92 (10.93, 16.91) | 27 | 12.44 (9.13, 15.76) | 16 | 21.88 (15.16, 28.59) | 15 | 48.60 (21.76, 75.44) | 26 | 66.77 (43.89, 89.65) | 52.85 (32.96, 72.74) <0.001 | 34.68 (10.83, 58.53) 0.002 | 7.96 (4.23, 11.68) 1.000 | -1.48 (-1.80, -1.16) 1.000 |
| Total number of DME utilized | 422 | 1.20 (1.07, 1.33) | 81 | 2.67 (2.25, 3.08) | 51 | 4.41 (3.81, 5.02) | 27 | 5.15 (4.14, 6.16) | 43 | 6.14 (5.37, 6.91) | 4.94 (4.30, 5.58) <0.001 | 3.95 (3.07, 4.83) <0.001 | 3.21 (2.74, 3.68) <0.001 | 1.47 (1.19, 1.75) <0.001 |
| Number of mobility/supportive aids | 422 | 0.62 (0.55, 0.68) | 81 | 1.25 (1.08, 1.41) | 51 | 1.26 (1.04, 1.47) | 27 | 1.11 (0.71, 1.51) | 43 | 0.88 (0.73, 1.04) | 0.27 (0.18, 0.35) 0.215 | 0.49 (0.16, 0.83) 0.006 | 0.64 (0.49, 0.79) <0.001 | 0.63 (0.53, 0.73) <0.001 |
| Number of communication/functional aids | 422 | 0.10 (0.06, 0.13) | 81 | 0.40 (0.23, 0.56) | 51 | 0.57 (0.36, 0.77) | 27 | 0.82 (0.43, 1.20) | 43 | 1.14 (0.85, 1.43) | 1.04 (0.79, 1.30) <0.001 | 0.72 (0.37, 1.07) <0.001 | 0.47 (0.30, 0.65) <0.001 | 0.30 (0.17, 0.44) <0.001 |
| Number of therapeutic interventions/procedures | 422 | 0.35 (0.29, 0.40) | 81 | 0.62 (0.44, 0.79) | 51 | 1.35 (1.11, 1.60) | 27 | 1.74 (1.34, 2.15) | 43 | 2.49 (2.18, 2.80) | 2.14 (1.89, 2.40) <0.001 | 1.39 (1.04, 1.75) <0.001 | 1.01 (0.82, 1.20) <0.001 | 0.27 (0.15, 0.39) 0.011 |
| Number of respiratory aids | 422 | 0.14 (0.10, 0.18) | 81 | 0.41 (0.26, 0.56) | 51 | 1.24 (0.95, 1.52) | 27 | 1.48 (1.11, 1.85) | 43 | 1.63 (1.31, 1.94) | 1.49 (1.21, 1.76) <0.001 | 1.34 (1.01, 1.67) <0.001 | 1.09 (0.85, 1.34) <0.001 | 0.27 (0.16, 0.38) 0.004 |
| EQ-5D-5L utility* | 90 | 0.53 (0.48, 0.58) | 14 | 0.25 (0.10, 0.39) | 7 | -0.12 (-0.43, 0.19) | 4 | -0.26 (-0.51, 0.00) | 10 | -0.12 (-0.31, 0.07) | -0.65 (-0.78, -0.51) <0.001 | -0.78 (-0.99, -0.58) <0.001 | -0.65 (-0.91, -0.39) <0.001 | -0.28 (-0.37, -0.19) 0.002 |

* Utility results were from US-based value set for the EQ-5D-5L

Supplementary Table S5. HCRU and HRQoL for slow, intermediate, and fast progressors: overall group

| Variable | Slow | | Intermediate | | Fast | | Fast vs slow | | Intermediate vs slow | | Fast vs intermediate | |
|---|------|-------------------------|--------------|-------------------------|------|-------------------------|--|--|--|--|----------------------|--|
| | n | Mean (95% CI) | n | Mean (95% CI) | n | Mean (95% CI) | Mean difference and 95% CI, P-value | | |
| Number of hospitalizations | 253 | 0.16 (0.10, 0.21) | 249 | 0.35 (0.26, 0.43) | 235 | 0.61 (0.50, 0.72) | 0.45 (0.39, 0.51) <0.001 | 0.19 (0.16, 0.22) 0.006 | 0.26 (0.24, 0.29) <0.001 | | | |
| Duration of hospitalization(s) | 33 | 2.73 (1.36, 4.10) | 63 | 4.60 (3.05, 6.16) | 97 | 4.99 (3.79, 6.19) | 2.26 (2.44, 2.09) 0.153 | 1.88 (1.69, 2.06) 0.386 | 0.39 (0.75, 0.03) 1.000 | | | |
| Total HCP consultations (last 12 months) | 285 | 13.10 (10.84, 15.37) | 287 | 18.29 (13.06, 23.51) | 295 | 18.59 (16.21, 20.98) | 5.49 (5.37, 5.61) 0.094 | 5.18 (2.23, 8.14) 0.131 | 0.31 (3.14, -2.53) 1.000 | | | |
| Professional caregiver hours (per week) | 22 | 25.23 (8.34, 42.12) | 69 | 26.84 (19.13, 34.55) | 98 | 30.60 (23.65, 37.56) | 5.37 (15.31, -4.56) 1.000 | 1.61 (10.79, -7.56) 1.000 | 3.76 (4.52, 3.01) 1.000 | | | |
| Total number of DME utilized | 285 | 1.02 (0.83, 1.20) | 287 | 2.49 (2.21, 2.77) | 295 | 3.90 (3.56, 4.24) | 2.88 (2.73, 3.04) <0.001 | 1.47 (1.38, 1.57) <0.001 | 1.41 (1.35, 1.47) <0.001 | | | |
| Number of mobility / supportive aids | 285 | 0.52 (0.43, 0.60) | 287 | 0.89 (0.79, 0.98) | 295 | 1.19 (1.08, 1.31) | 0.68 (0.65, 0.71) <0.001 | 0.37 (0.36, 0.38) <0.001 | 0.31 (0.29, 0.33) <0.001 | | | |
| Number of communication / functional aids | 285 | 0.08 (0.04, 0.13) | 287 | 0.32 (0.24, 0.40) | 295 | 0.57 (0.48, 0.67) | 0.49 (0.44, 0.54) <0.001 | 0.24 (0.21, 0.27) <0.001 | 0.25 (0.23, 0.27) <0.001 | | | |
| Number of therapeutic interventions / procedures | 285 | 0.32 (0.25, 0.38) | 287 | 0.77 (0.67, 0.88) | 295 | 1.21 (1.08, 1.34) | 0.89 (0.83, 0.96) <0.001 | 0.46 (0.42, 0.50) <0.001 | 0.44 (0.41, 0.46) <0.001 | | | |
| Number of respiratory aids | 285 | 0.11 (0.05, 0.16) | 287 | 0.51 (0.41, 0.61) | 295 | 0.93 (0.81, 1.04) | 0.82 (0.76, 0.89) <0.001 | 0.41 (0.36, 0.46) <0.001 | 0.41 (0.40, 0.43) <0.001 | | | |
| EQ-5D-5L utility* | 58 | 0.58 (0.52, 0.65) | 47 | 0.40 (0.29, 0.50) | 54 | 0.22 (0.12, 0.33) | -0.36 (-0.40, -0.32) <0.001 | -0.19 (-0.23, -0.15) 0.014 | -0.17 (-0.17, -0.18) 0.028 | | | |

* Utility results were from US-based value set for the EQ-5D-5L

Supplementary Table S6. HCRU and HRQoL for slow, intermediate, and fast progressors: US subgroup

| Variable | Slow | | Intermediate | | Fast | | Fast vs slow | | Intermediate vs slow | | Fast vs intermediate | |
|--|------|------------------------|--------------|-------------------------|------|-------------------------|--|--|--|--|----------------------|--|
| | n | Mean (95% CI) | n | Mean (95% CI) | n | Mean (95% CI) | Mean difference and 95% CI, P-value | | |
| Number of hospitalizations | 83 | 0.15 (0.04, 0.25) | 81 | 0.16 (0.05, 0.27) | 109 | 0.51 (0.35, 0.67) | 0.37 (0.31, 0.43) <0.001 | 0.02 (0.01, 0.02) 1.000 | 0.35 (0.30, 0.41) 0.001 | | | |
| Duration of hospitalization(s) | 9 | 3.44 (-1.46, 8.35) | 10 | 1.20 (-0.87, 3.27) | 38 | 2.68 (1.01, 4.36) | -0.76 (2.47, -3.99) 1.000 | -2.24 (0.591, -5.08) 1.000 | 1.48 (1.88, 1.09) 1.000 | | | |
| Total HCP consultations (last 12 months) | 101 | 11.11 (8.83, 13.39) | 97 | 11.01 (9.02, 13.00) | 142 | 18.30 (14.83, 21.78) | 7.19 (6.00, 8.39) 0.002 | -0.10 (0.19, -0.39) 1.000 | 7.30 (5.81, 8.78) 0.002 | | | |
| Professional caregiver hours (per week) | 9 | 27.00 (7.70, 46.31) | 16 | 16.81 (10.97, 22.66) | 45 | 35.42 (24.28, 46.57) | 8.42 (16.58, 0.26) 1.000 | -10.19 (3.27, -23.65) 1.000 | 18.61 (13.31, 23.91) 0.144 | | | |
| Total number of DME utilized | 101 | 1.32 (0.93, 1.70) | 97 | 2.20 (1.75, 2.65) | 142 | 4.91 (4.37, 5.45) | 3.59 (3.44, 3.74) <0.001 | 0.88 (0.81, 0.94) 0.058 | 2.71 (2.63, 2.80) <0.001 | | | |
| Number of mobility / supportive aids | 101 | 0.59 (0.45, 0.74) | 97 | 0.87 (0.70, 1.04) | 142 | 1.44 (1.26, 1.63) | 0.85 (0.81, 0.89) <0.001 | 0.27 (0.25, 0.30) 0.127 | 0.58 (0.56, 0.59) <0.001 | | | |
| Number of communication / functional aids | 101 | 0.16 (0.04, 0.27) | 97 | 0.29 (0.17, 0.41) | 142 | 0.77 (0.60, 0.93) | 0.61 (0.56, 0.66) <0.001 | 0.13 (0.12, 0.14) 0.729 | 0.48 (0.44, 0.52) <0.001 | | | |
| Number of therapeutic interventions / procedures | 101 | 0.40 (0.27, 0.52) | 97 | 0.67 (0.51, 0.83) | 142 | 1.50 (1.30, 1.70) | 1.10 (1.02, 1.18) <0.001 | 0.27 (0.24, 0.31) 0.135 | 0.83 (0.79, 0.87) <0.001 | | | |
| Number of respiratory aids | 101 | 0.17 (0.04, 0.29) | 97 | 0.37 (0.21, 0.53) | 142 | 1.20 (1.02, 1.38) | 1.03 (0.97, 1.09) <0.001 | 0.20 (0.17, 0.24) 0.334 | 0.83 (0.80, 0.85) <0.001 | | | |
| EQ-5D-5L utility* | 14 | 0.71 (0.59, 0.84) | 8 | 0.29 (-0.05, 0.63) | 19 | 0.30 (0.14, 0.46) | -0.41 (-0.45, -0.38) 0.002 | -0.43 (-0.64, -0.21) 0.013 | 0.01 (0.19, -0.17) 1.000 | | | |

* Utility results were from US-based value set for the EQ-5D-5L

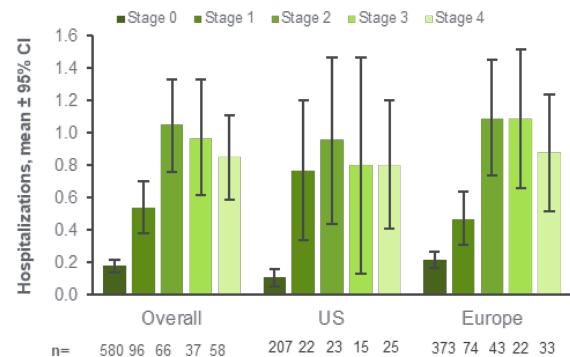
Supplementary Table S7. HCRU and HRQoL for slow, intermediate and fast progressors: subgroup from Europe

| Variable | Slow | | Intermediate | | Fast | | Fast vs slow | | Intermediate vs slow | | Fast vs intermediate | |
|--|------|-------------------------|--------------|-------------------------|------|-------------------------|--|--|--|--|----------------------|--|
| | n | Mean (95% CI) | n | Mean (95% CI) | n | Mean (95% CI) | Mean difference and 95% CI, P-value | | |
| Number of hospitalizations | 170 | 0.17 (0.10, 0.23) | 168 | 0.44 (0.32, 0.55) | 126 | 0.69 (0.54, 0.85) | 0.53 (0.44, 0.62) <0.001 | 0.27 (0.23, 0.32) 0.001 | 0.26 (0.21, 0.30) 0.005 | | | |
| Duration of hospitalization(s) | 24 | 2.46 (1.40, 3.52) | 53 | 5.25 (3.47, 7.02) | 59 | 6.48 (4.91, 8.04) | 4.02 (3.51, 4.52) 0.013 | 2.79 (2.07, 3.50) 0.151 | 1.23 (1.44, 1.02) 0.779 | | | |
| Total HCP consultations (last 12 months) | 184 | 14.20 (10.91, 17.48) | 190 | 22.00 (14.21, 29.80) | 153 | 18.86 (15.54, 22.19) | 4.67 (4.63, 4.71) 0.751 | 7.80 (3.29, 12.32) 0.127 | -3.14 (1.34, -7.61) 1.000 | | | |
| Professional caregiver hours (per week) | 13 | 24.00 (-3.79, 51.79) | 53 | 29.87 (20.03, 39.70) | 53 | 26.51 (17.60, 35.42) | 2.51 (21.40, -16.38) 1.000 | 5.87 (23.83, -12.09) 1.000 | -3.36 (-2.43, -4.29) 1.000 | | | |
| Total number of DME utilized | 184 | 0.85 (0.66, 1.05) | 190 | 2.64 (2.29, 3.00) | 153 | 2.96 (2.59, 3.33) | 2.11 (1.93, 2.29) <0.001 | 1.79 (1.63, 1.95) <0.001 | 0.32 (0.30, 0.34) 0.491 | | | |
| Number of mobility / supportive aids | 184 | 0.47 (0.37, 0.57) | 190 | 0.90 (0.78, 1.01) | 153 | 0.96 (0.84, 1.09) | 0.49 (0.46, 0.51) <0.001 | 0.42 (0.41, 0.44) <0.001 | 0.07 (0.06, 0.08) 1.000 | | | |
| Number of communication / functional aids | 184 | 0.04 (0.01, 0.07) | 190 | 0.34 (0.24, 0.44) | 153 | 0.39 (0.29, 0.48) | 0.35 (0.28, 0.41) <0.001 | 0.30 (0.23, 0.37) <0.001 | 0.05 (0.05, 0.05) 1.000 | | | |
| Number of therapeutic interventions / procedures | 184 | 0.27 (0.19, 0.35) | 190 | 0.83 (0.69, 0.97) | 153 | 0.94 (0.78, 1.10) | 0.67 (0.59, 0.75) <0.001 | 0.55 (0.50, 0.61) <0.001 | 0.11 (0.09, 0.14) 0.659 | | | |
| Number of respiratory aids | 184 | 0.07 (0.03, 0.12) | 190 | 0.58 (0.45, 0.72) | 153 | 0.67 (0.53, 0.82) | 0.60 (0.50, 0.70) <0.001 | 0.51 (0.43, 0.60) <0.001 | 0.09 (0.08, 0.10) 0.848 | | | |
| EQ-5D-5L utility* | 44 | 0.55 (0.47, 0.62) | 39 | 0.42 (0.31, 0.53) | 35 | 0.18 (0.04, 0.32) | -0.36 (-0.43, -0.30) <0.001 | -0.12 (-0.16, -0.09) 0.278 | -0.24 (-0.27, -0.21) 0.008 | | | |

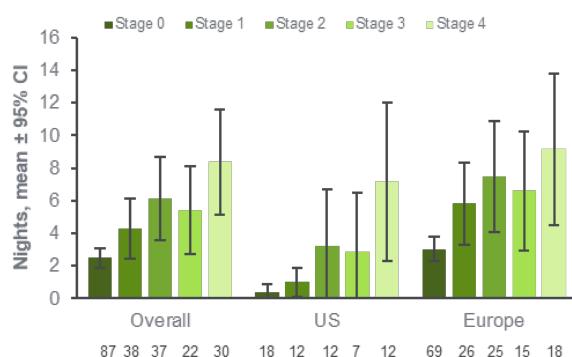
* Utility results were from US-based value set for the EQ-5D-5L

Supplementary Figure S1. HCRU and HRQoL by MiToS stage

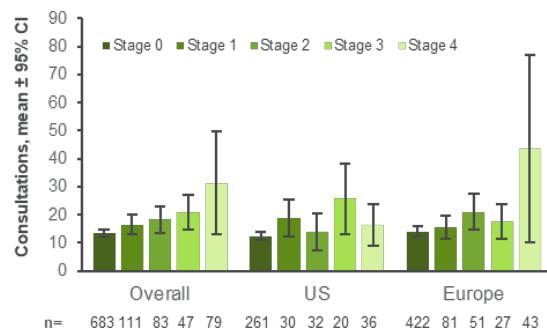
Number of hospitalizations in the last 12 months



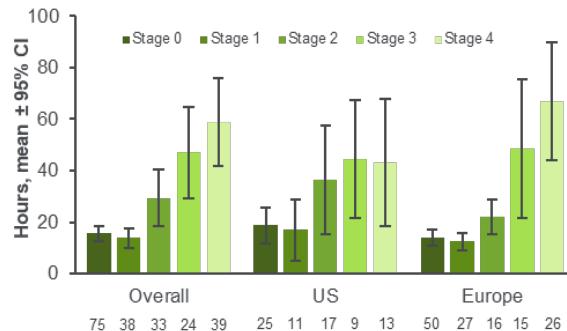
Total duration of hospitalizations (nights)



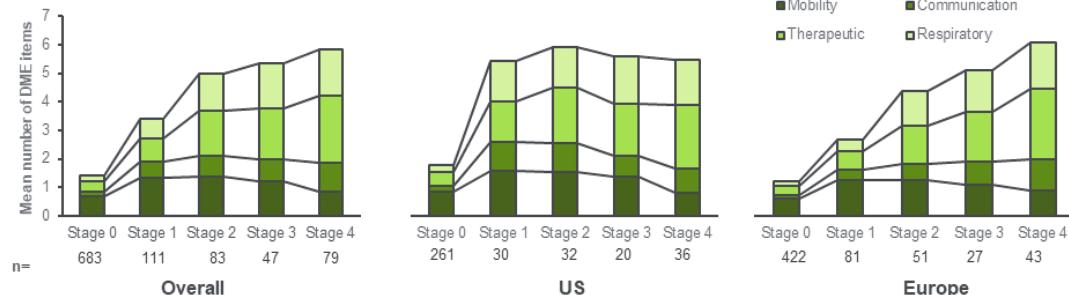
Number of HCP consultations in the last 12 months



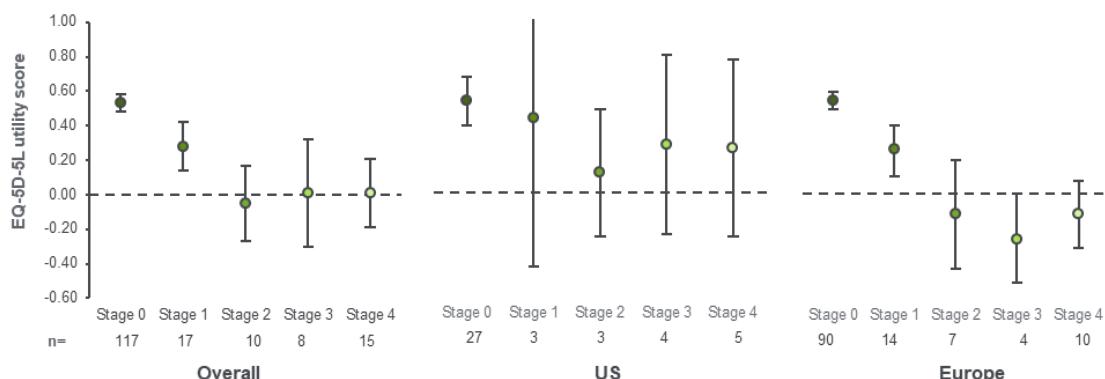
Hours of professional caregiver support (per week)



Number of items of DME utilized



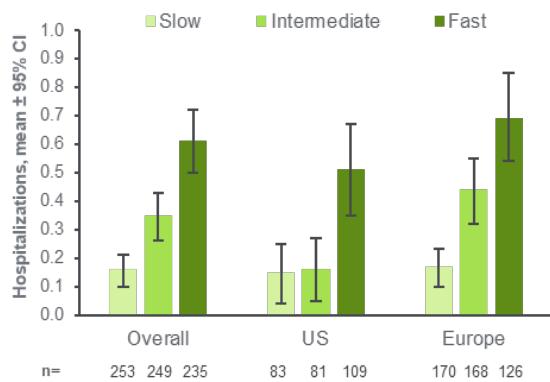
EQ-5D-5L utility score



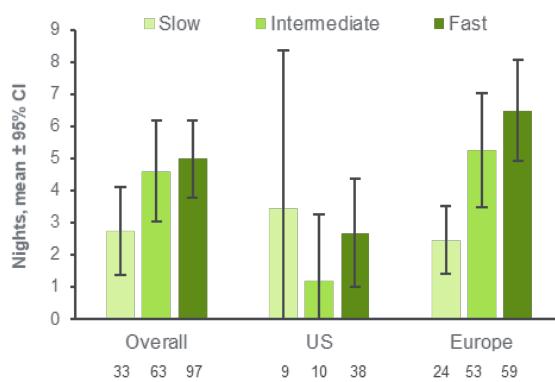
Utility results were from US-based value set for the EQ-5D-5L. DME, durable medical equipment

Supplementary Figure S2. HCRU and HRQoL by ALS progression rate

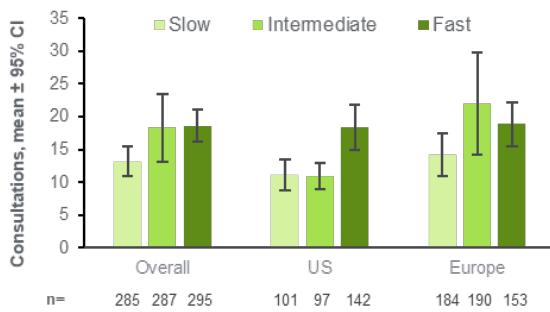
Number of hospitalizations in the last 12 months



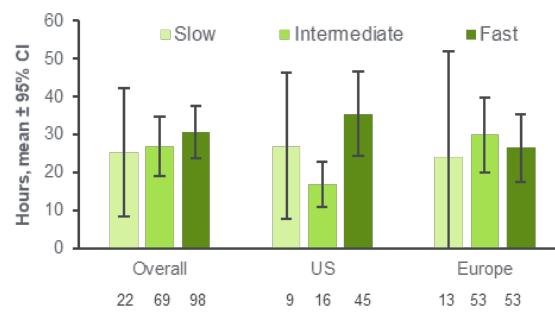
Total duration of hospitalizations (nights)



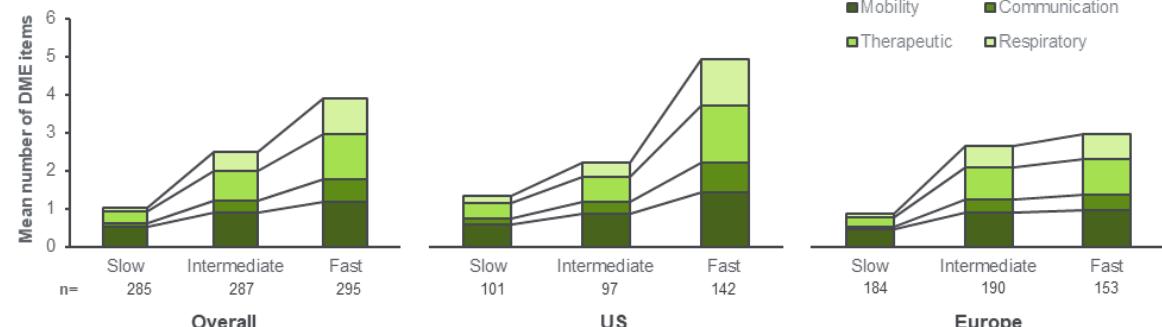
Number of HCP consultations in the last 12 months



Hours of professional caregiver support (per week)

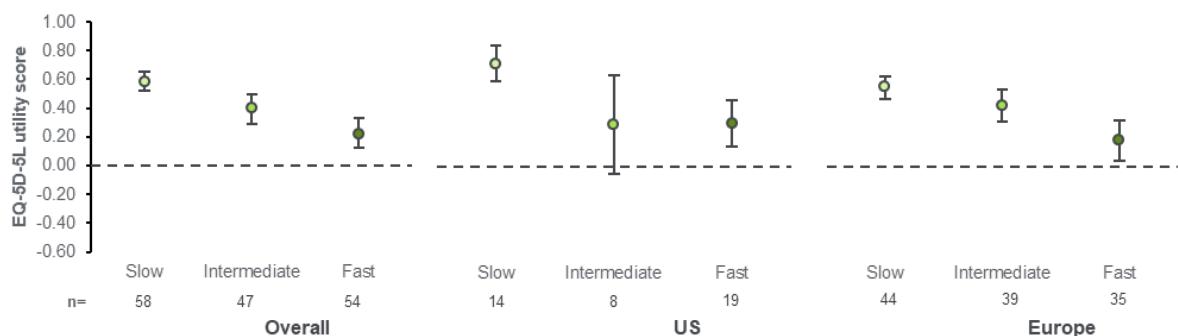


Number of items of DME utilized



Mobility Communication
Therapeutic Respiratory

EQ-5D-5L utility score



Utility results were from US-based value set for the EQ-5D-5L. DME, durable medical equipment