**Supplementary Table S5. Characterization of DMT-switching MS patients stratified by the calendar period of the first DMT start**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2014–2017 (N=993)** | **2018–2021 (N=368)** | **p-value** |
| **Sex**, N (%) |  |  | ***0.035Chi*** |
| Female | 679 (68.4) | 274 (74.5) |  |
| Male | 314 (31.6) | 94 (25.5) |  |
| **Age at MS symptom onset [years]**, mean (SD) | 33.5 (10.4) | 32.4 (9.6) | 0.075t |
| **Time from diagnosis to first DMT [years]**, mean (SD) | 0.7 (1.3) | 0.8 (1.6) | 0.136t |
| **Age at first DMT start [years]**, mean (SD) | 36.5 (10.7) | 35.2 (10.3) | ***0.042t*** |
| **Partnership status**, N (%)\* |  |  | 0.058Chi |
| Single | 235 (35.1) | 96 (28.9) |  |
| Any partnership | 434 (64.9) | 236 (71.1) |  |
| **Employment status**, N (%)\* |  |  | ***0.018Chi*** |
| In training | 60 (8.9) | 13 (4.1) |  |
| Employed – full time | 336 (49.9) | 186 (59.0) |  |
| Employed –part time | 138 (20.5) | 54 (17.1) |  |
| Retired – disability | 59 (8.8) | 29 (9.2) |  |
| Retired – old age | 13 (1.9) | 2 (0.6) |  |
| Other | 67 (10.0) | 31 (9.8) |  |
| **Educational level**, N (%)\* |  |  | 0.472Chi |
| NSCE | 10 (1.6) | 2 (0.6) |  |
| CSE/GCSE | 378 (60.3) | 190 (59.0) |  |
| Advanced technical college entrance qualification | 62 (9.9) | 39 (12.1) |  |
| A level | 177 (28.2) | 91 (28.3) |  |
| **Observation period since first DMT start [years]**, mean (SD) | 5.1 (1.6) | 2.6 (0.8) | ***<0.001t*** |
| **First DMT class**, N (%) |  |  | 0.511Chi |
| Mild to moderate efficacy | 859 (86.5) | 324 (88.0) |  |
| High efficacy | 134 (13.5) | 44 (12.0) |  |
| **Time on first DMT [years]**, mean (SD) | 1.9 (1.6) | 1.1 (0.9) | ***<0.001t*** |
| **EDSS at first DMT start**, N (%)\* |  |  | ***0.013Fi*** |
| Mild [0.0–2.5] | 244 (78.2) | 167 (87.4) |  |
| Moderate/Severe [≥3.0] | 68 (21.8) | 24 (12.6) |  |
| **EDSS worsening within 6 months before first DMT cessation/last follow-up**, N (%)\* | 4 (1.0) | 1 (0.5) | >0.999Chi |
| **ARR at first DMT start** (95% CI) | 0.27 [0.24;0.31] | 0.22 [0.17;0.27] | 0.065Kru |
| **Relapses within 6 months after first DMT start**, N (%) | 104 (10.5) | 43 (11.7) | 0.588Chi |
| **ARR at first DMT cessation/last follow-up** (95% CI) | 0.35 [0.31;0.40] | 0.36 [0.28;0.44] | 0.876Kru |
| **MRI results at first DMT start**, N (%)\* |  |  | 0.103Chi |
| Stable | 11 (20.4) | 19 (36.5) |  |
| Unstable | 43 (79.6) | 33 (63.5) |  |
| **MRI results within 6 months after first DMT start**, N (%)\* |  |  | 0.699Chi |
| Stable | 152 (63.3) | 82 (60.7) |  |
| Unstable | 88 (36.7) | 53 (39.3) |  |
| **MRI results at first DMT cessation/last follow-up**, N (%)\* |  |  | 0.172Chi |
| Stable | 155 (61.8) | 82 (54.3) |  |
| Unstable | 96 (38.2) | 69 (45.7) |  |

ARR – annualized relapse rate

CI – confidence interval

Chi – chi-square test

CSE/GCSE – certificate of secondary education/ general CSE

DMT – disease-modifying therapy

EDSS – expanded disability status scale

Fi – Fisher’s exact test

Kru - Kruskal-Wallis test

MRI - magnetic resonance imaging

MS – multiple sclerosis

N – number of patients

NSCE – no school-leaving certificate

SD – standard deviation

t – Student's t test

\* – denominators may differ due to missing values