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Variation in time to first DMT among people with MS in the United States, United Kingdom and Germany

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Background and aims: The number of disease-modifying therapy (DMT) options in multiple sclerosis (MS) has increased over time. Recent EAN/ECTRIMS guidelines highlighted the need for early introduction of DMT. We aimed to investigate the time to first DMT after diagnosis in three large MS registry populations (NARCOMS, United Kingdom (UKMSR) and Germany (GMSR)).

Methods: Each registry captures demographics, disability status (categorized as mild, moderate or severe) and treatment status. Inclusion criteria were a relapsing disease course, diagnosis in 2014 or later and provided data on DMT and disability status. The overall and age-, gender- and disability-specific times to first DMT after diagnosis were summarized. Kaplan Meier curves were used to examine time to first DMT (in years). Comparisons between countries were evaluated in a meta-analytic approach using Cochran's Q-test.

Results: 2,506 participants (NARCOMS:325, UKMSR:453, GMSR:1,728) fulfilled the inclusion criteria. Of those that started a DMT (table 1) (N=2065, 82.4%) the overall mean time to first DMT was shortest in Germany followed by the UK and NARCOMS (p<0.001). 4.5 years after diagnosis, a vast majority (93.5%) of NARCOMS participants received a DMT where as in Germany 16.4% and more than 29% in the UK have not received a DMT at that point (figure 1). Time to first DMT was shortest for mild disability levels in Germany, moderate in the UK and severe in NARCOMS.

Country		Germany	United Kingdom	NARCOMS
		N=1444	N=317	N=304
Overall		0.4 (0.83)	0.52 (0.54)	0.86 (1.2)
Gender	Male	0.39 (0.82)	0.53 (0.58)	0.72 (1.25)
	Female	0.40 (0.84)	0.51 (0.52)	0.89 (1.18)
Disability	Mild	0.39 (0.79)	0.51 (0.56)	0.83 (1.20)
	Moderate	0.42 (1.28)	0.49 (0.43)	0.93 (1.24)
	Severe	0.99 (1.04)	0.60 (0.51)	0.77 (0.98)
Age-band	<=20	0.27 (0.58)	0.12 (0.04)	0.10 (0.22)
	21-30	0.40 (0.77)	0.51 (0.60)	0.46 (0.79)
	31-40	0.43 (0.90)	0.51 (0.49)	0.88 (1.22)
	41-50	0.40 (0.93)	0.52 (0.60)	0.87 (1.20)
	51-60	0.38 (0.65)	0.59 (0.49)	1.09 (1.33)
	>=61	0.65 (0.84)	0.52 (0.23)	1.54 (1.46)

Mean and standard deviation within those patients that did receive DMT

Table 1

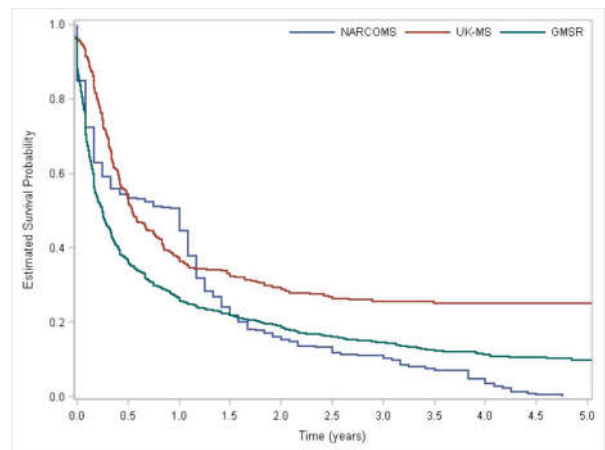


Figure 1

Conclusion: Time to first DMT varied strongly across countries, however, a larger proportion of PwMS in NARCOMS received a DMT within 5 years of diagnosis than Germany and the UK.

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