

EVIDENCE MAP OF COST-UTILITY MODELS IN MULTIPLE SCLEROSIS PUBLISHED SINCE 1960

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Objectives

To create an evidence map of studies reporting cost-utility models for multiple sclerosis, and the geographical jurisdictions for which these studies were conducted.

Methods

We searched the heoro.com database (www.heoro.com) for cost-utility modelling studies in multiple sclerosis (MS) that were published between 1960 and 28th December 2016. We analysed the abstracts identified by the search to determine the different types of interventions modelled across the range of geographical locations, by date and type of MS. We presented the findings as an evidence map.

Results

	Geographical jurisdiction									Publication year				
	France	Germany	International	Italy	Serbia	Spain	Sweden	UK	US	1960-1999	2000-2004	2005-2009	2010-2014	2015-2016
No. of studies	1	2	7	1	1	3	4	16	11	2	10	7	18	5

Jurisdiction	Interventions											
	Any IFN-beta	Interferon beta-1a	Interferon beta-1b	Glatiramer	Fingolimod	Natalizumab	Botulinum toxin	Cannabinoids	Mitoxantrone	Dimethyl fumarate	Teriflunomide	Non-drug
France		1	1	1	1					1	1	
Germany	1			1				1	1			
International	1	1		1		1						
Italy			1									
Serbia		1	1	1								
Spain		2	2	2				1				
Sweden		1	2			1						
UK	4	1	2	3	1	1	1	2	1	1		3
US	1	4	6	5	1	1			1			1
No. of studies	7	11	15	14	3	4	1	3	3	2	1	4

Modelling Perspective	Interventions											
	Any IFN-beta	Interferon beta-1a	Interferon beta-1b	Glatiramer	Fingolimod	Natalizumab	Botulinum toxin	Cannabinoids	Mitoxantrone	Dimethyl fumarate	Teriflunomide	Non-drug
Healthcare	4			3	1		1	2	1	1		1
Societal	2	9	13	9	2	3			2	1	1	
Unspecified	1	2	2	2		1		1				3
No. of studies	7	11	15	14	3	4	1	3	3	2	1	4

Type of MS	Interventions											
	Any IFN-beta	Interferon beta-1a	Interferon beta-1b	Glatiramer	Fingolimod	Natalizumab	Botulinum toxin	Cannabinoids	Mitoxantrone	Dimethyl fumarate	Teriflunomide	Non-drug
Relapsing-remitting	4	8	8	10	3	3			1	2	1	
Progressive	2	1	5	2				1	2			1
Any or unspecified	3	2	3	3		1	1	2	1			3
No. of studies	7	11	15	14	3	4	1	3	3	2	1	4

Numbers refer to number of studies identified for each category. Where a study is set in two or three locations, these are all listed separately. Studies set in five or more jurisdictions, or systematic reviews are classified as International. Number of studies in each subgroup may not add up to the total score because of double-counting.

Conclusions

The majority of cost-utility models published for treatments of multiple sclerosis assessed interferon beta formulations, or compared these treatments against newer products, and were generally relevant to the UK or US jurisdiction. The substantial impact of the disease on social and occupational functioning was reflected in the high proportion of models that were conducted from a societal perspective.