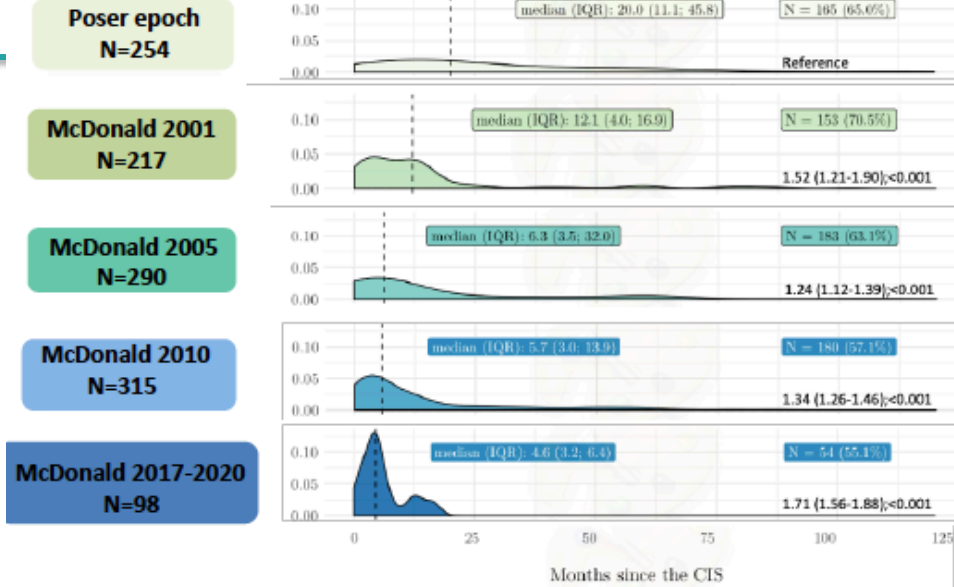
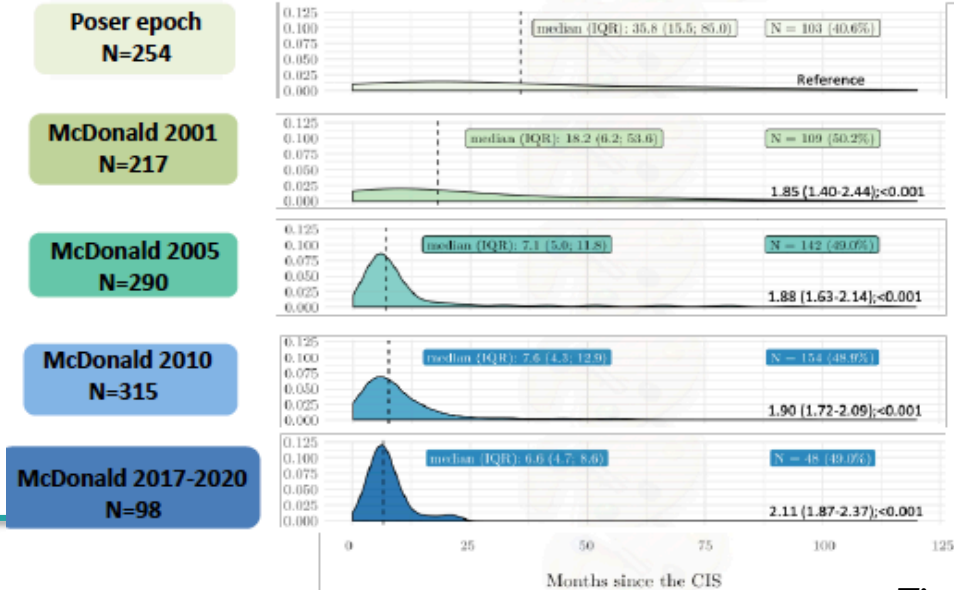


### A Time from CIS to MS diagnosis According to the CIS epoch



From Poser to McDonald 2017:  
**77%**  
reduction in the median time  
from CIS to MS diagnosis

### B Time from CIS to treatment initiation According to the CIS epoch

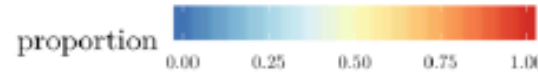


From Poser to McDonald 2017:  
**82%**  
reduction in the median time  
from CIS to treatment initiation

## Cumulative probability of reaching EDSS 3.0 According to the MS diagnosis epoch

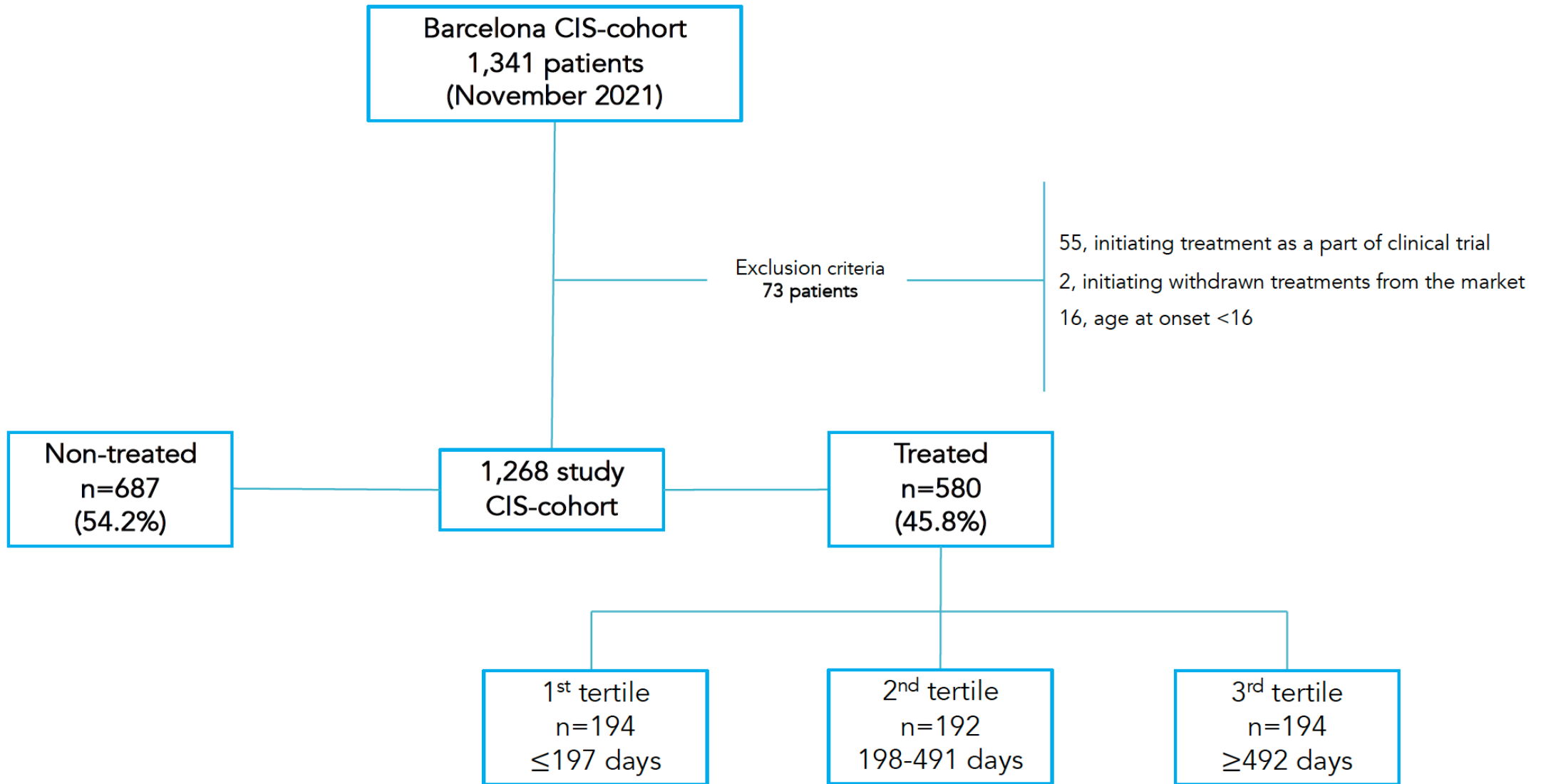
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60					
<b>Poser 1994-2000</b>	0	0	0	0.33	0.33	0.41	0.47	0.47	0.68	0.68	0.7	0.72	0.72	0.73	0.73	0.73	0.76	0.8	0.8	0.8	0.82	0.84	0.86	0.86	0.88	0.88	0.9	0.9	0.9	0.9	0.9	0.9	0.91	0.92	0.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		
<b>McDonald 2001-04</b>	0	0	0	0	0	0.12	0.15	0.19	0.23	0.28	0.3	0.34	0.39	0.39	0.42	0.42	0.43	0.45	0.46	0.48	0.51	0.52	0.53	0.54	0.57	0.58	0.61	0.62	0.62	0.64	0.65	0.67	0.69	0.71	0.71	0.72	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.76	0.79	
<b>McDonald 2005-09</b>	0	0	0	0	0	0.17	0.17	0.17	0.17	0.21	0.21	0.25	0.25	0.29	0.31	0.31	0.31	0.31	0.33	0.34	0.36	0.38	0.39	0.42	0.45	0.46	0.48	0.49	0.51	0.51	0.51	0.52	0.56	0.56	0.58	0.58	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
<b>McDonald 2010-16</b>	0	0	0	0	0	0	0	0	0.05	0.05	0.05	0.05	0.05	0.08	0.08	0.1	0.14	0.16	0.25	0.27	0.28	0.3	0.3	0.33	0.36	0.38	0.38	0.4	0.42	0.42	0.42	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
<b>McDonald 2017-20</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	

Patient's age in years

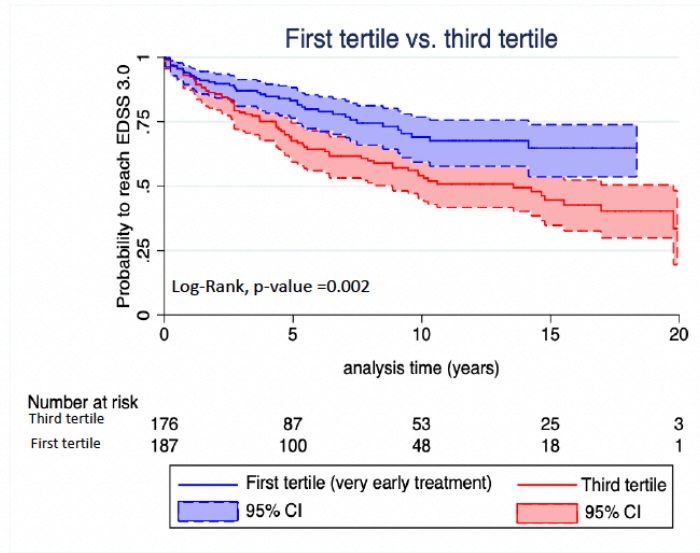


**Probability for reaching an EDSS  $\geq 3.0$  at the age of 40 years (95%CI):**

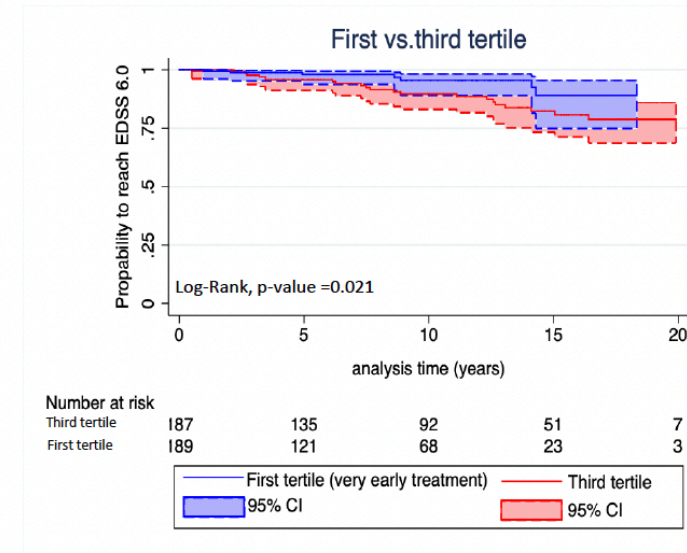
- 0.86 (0.59-0.95) in Poser
- 0.52 (0.38-0.64) in McDonald 2001-04
- 0.39 (0.10-0.59) in McDonald 2005-09
- 0.30 (0.15-0.42) in McDonald 2010-16
- 0.20 (0-0.48) in McDonald 2017-20



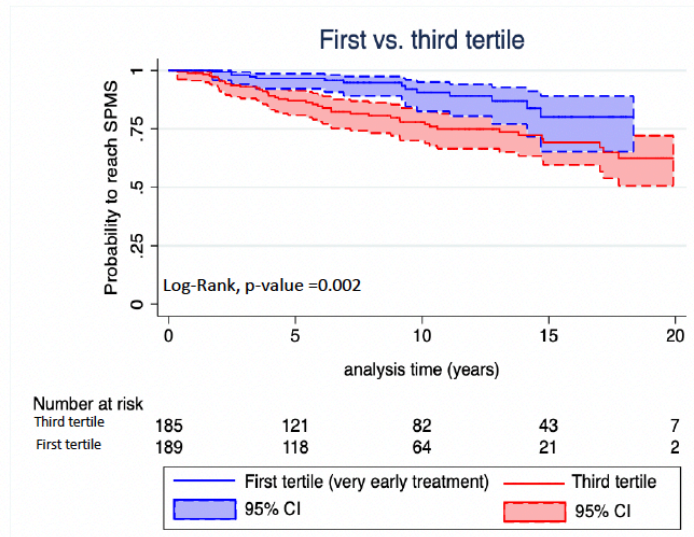
**A** Time to reach EDSS 3.0



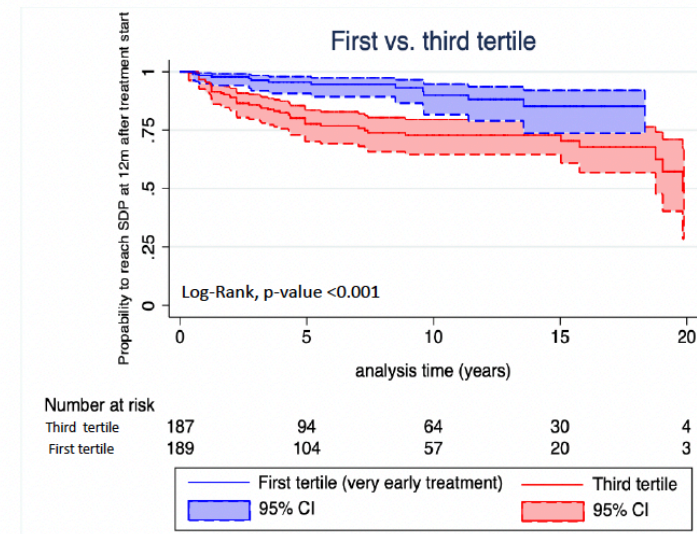
**B** Time to reach EDSS 6.0

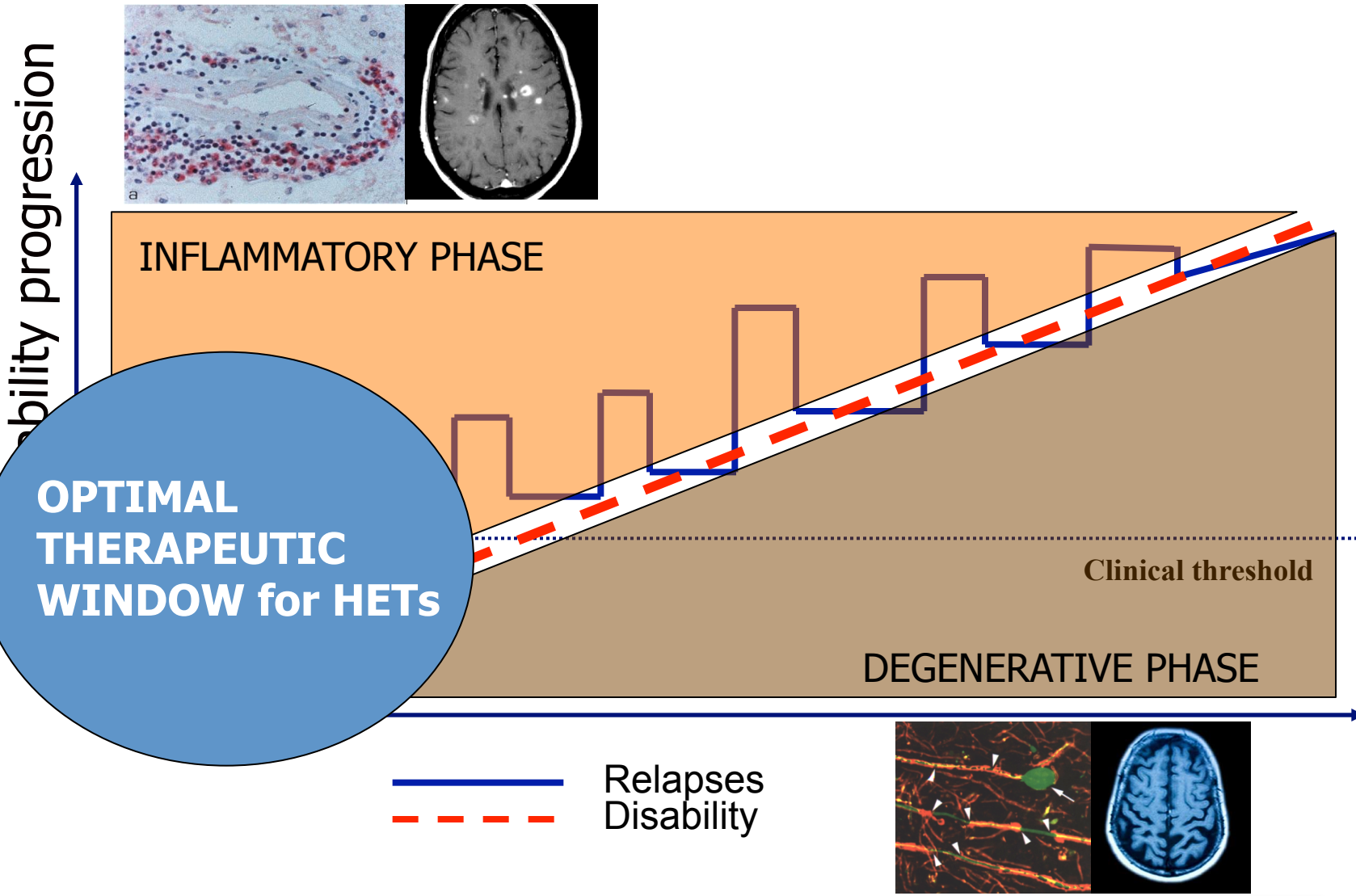


**C** Time to reach SPMS

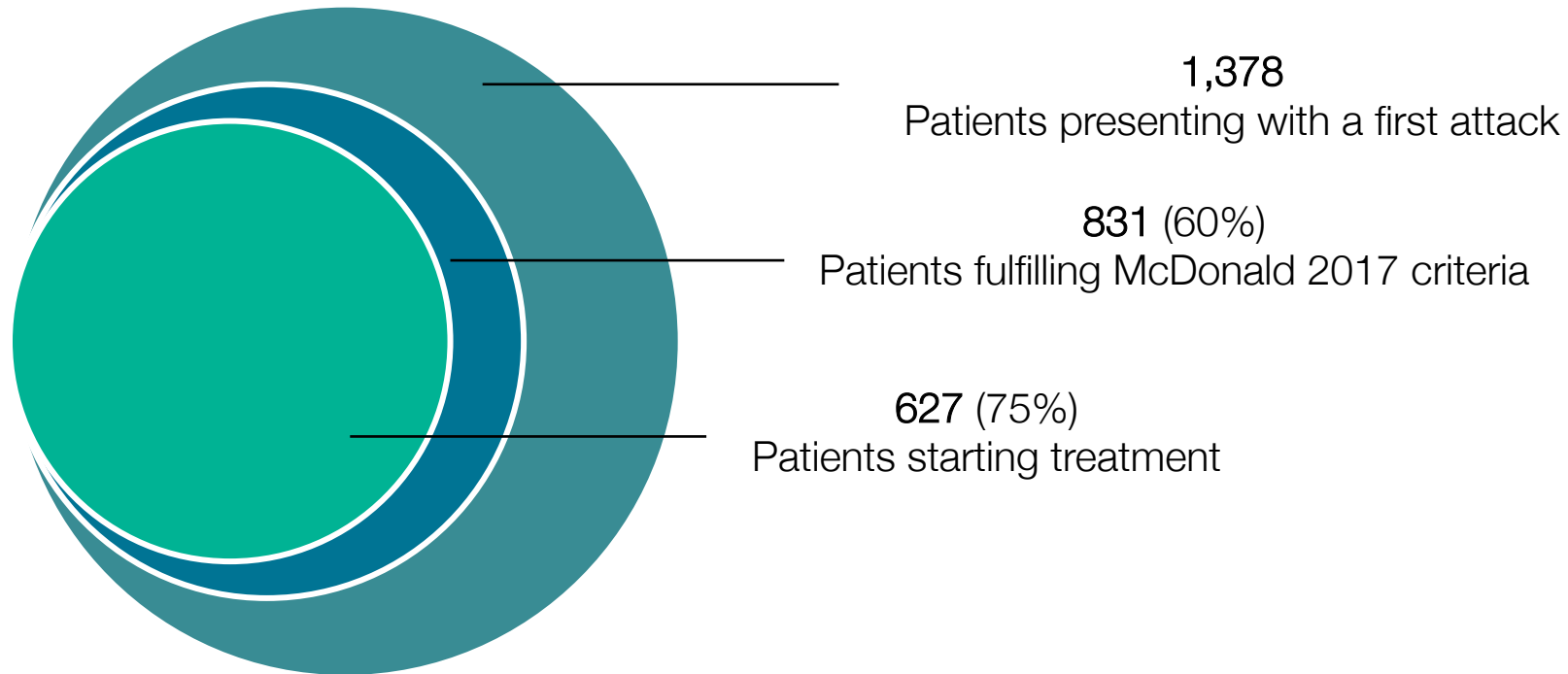


**D** Time to reach SDP at 12 months after treatment initiation





# Results Big numbers

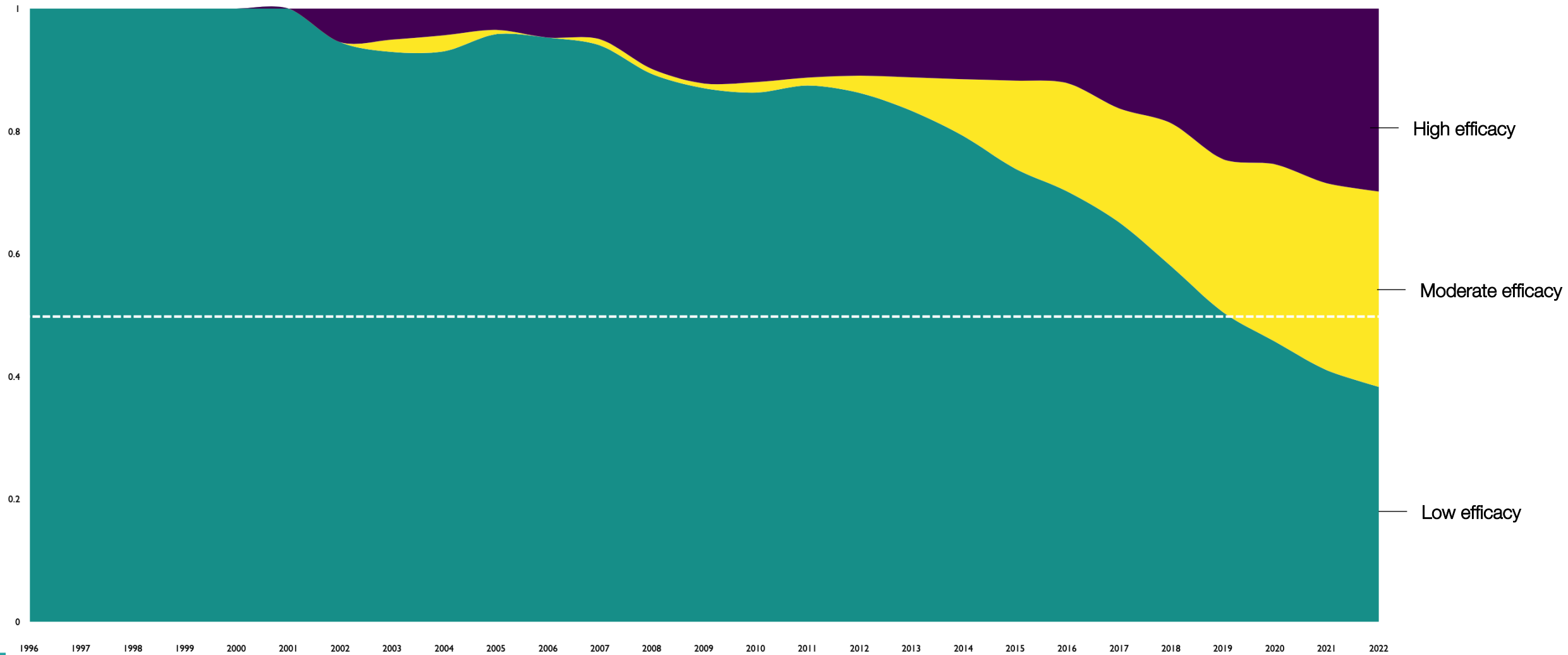


## Generally speaking

A total of **1,464 treatment sequences** have been administered in patients fulfilling McDonald 2017 criteria during their follow-up

Of these, **449 (30,7%)** treatment sequences were second line treatments

# Results Ongoing treatments line



---

**There is no prevention for MS**



**Acknowledgements**

The authors thank J.-J. Martin and A. Sieben for the immunohistochemistry images and expert support. The authors receive funding from the Belgian Science Policy Office Interuniversity Attraction Poles programme, the European Centers of Excellence in Neurodegeneration, the Methusalem Excellence programme, the Alzheimer Research Foundation, the Medical Foundation Queen Elisabeth, the Research Foundation Flanders, the Agency for Innovation by Science and Technology Flanders, the University of Antwerp Research Fund, and the MetLife Foundation Award for Medical Research.

marked increase in the incidence of immune diseases, which has probably been driven by changes in environmental factors. Epidemiological risk factors for MS include vitamin D deficiency, exposure to Epstein–Barr virus in early childhood and cigarette smoking. Recent studies have shown that components of the diet and gut microbiota can strongly affect levels of effector T cells in the gut; a dietary factor could well be salt. In two independent groups came to the co

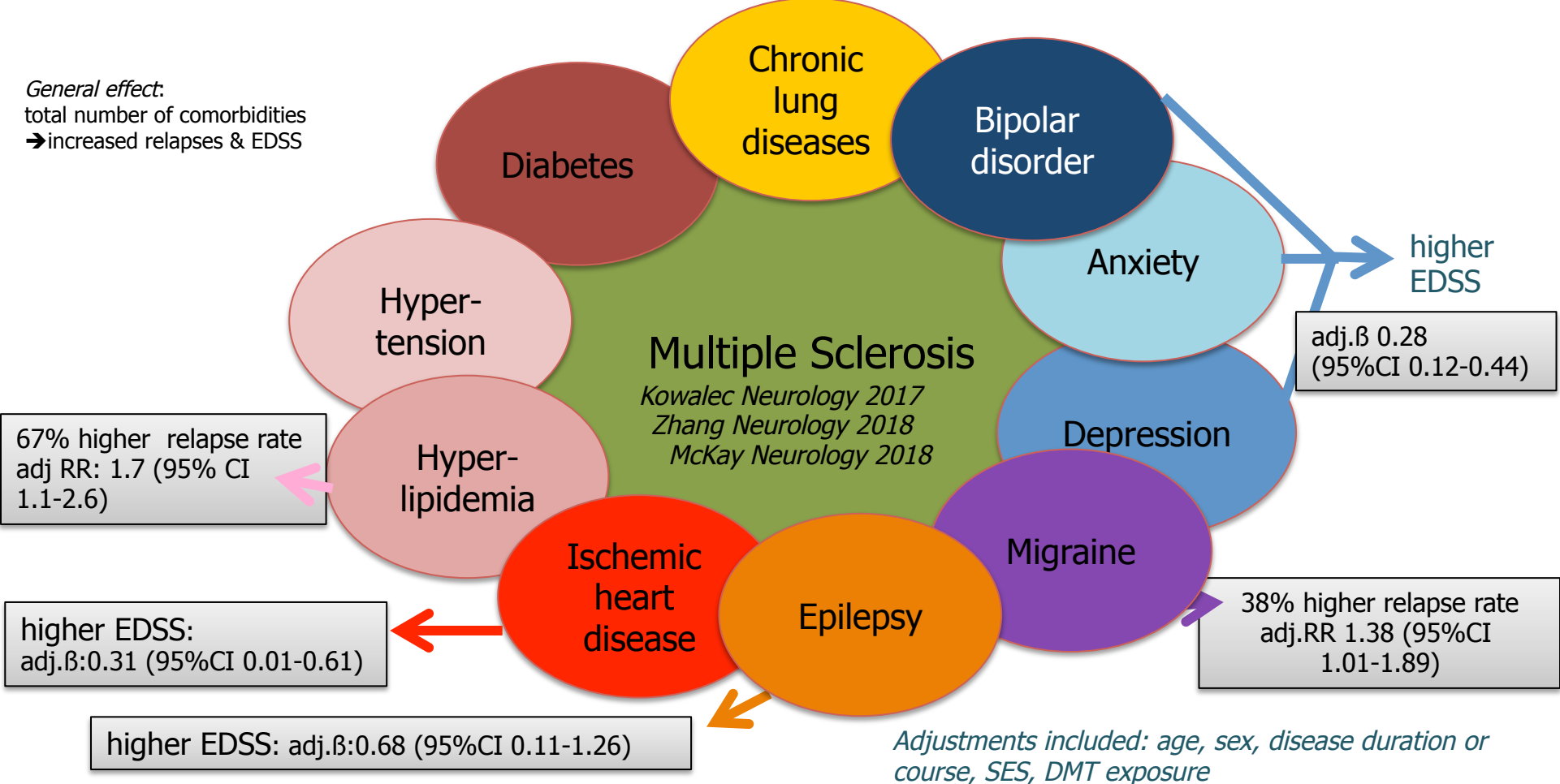


Policy Office Interuniversity Attraction Poles programme, the European Centers of Excellence in Neurodegeneration, the Methusalem Excellence programme, the Alzheimer Research Foundation, the Medical Foundation Queen Elisabeth, the Research Foundation Flanders, the Agency for Innovation by Science and Technology Flanders, the University of Antwerp Research Fund, and the MetLife Foundation Award for Medical Research.



# Environmental factors. Prevention clinic

Comorbidity associated with higher: relapse rate & disability (EDSS) risk



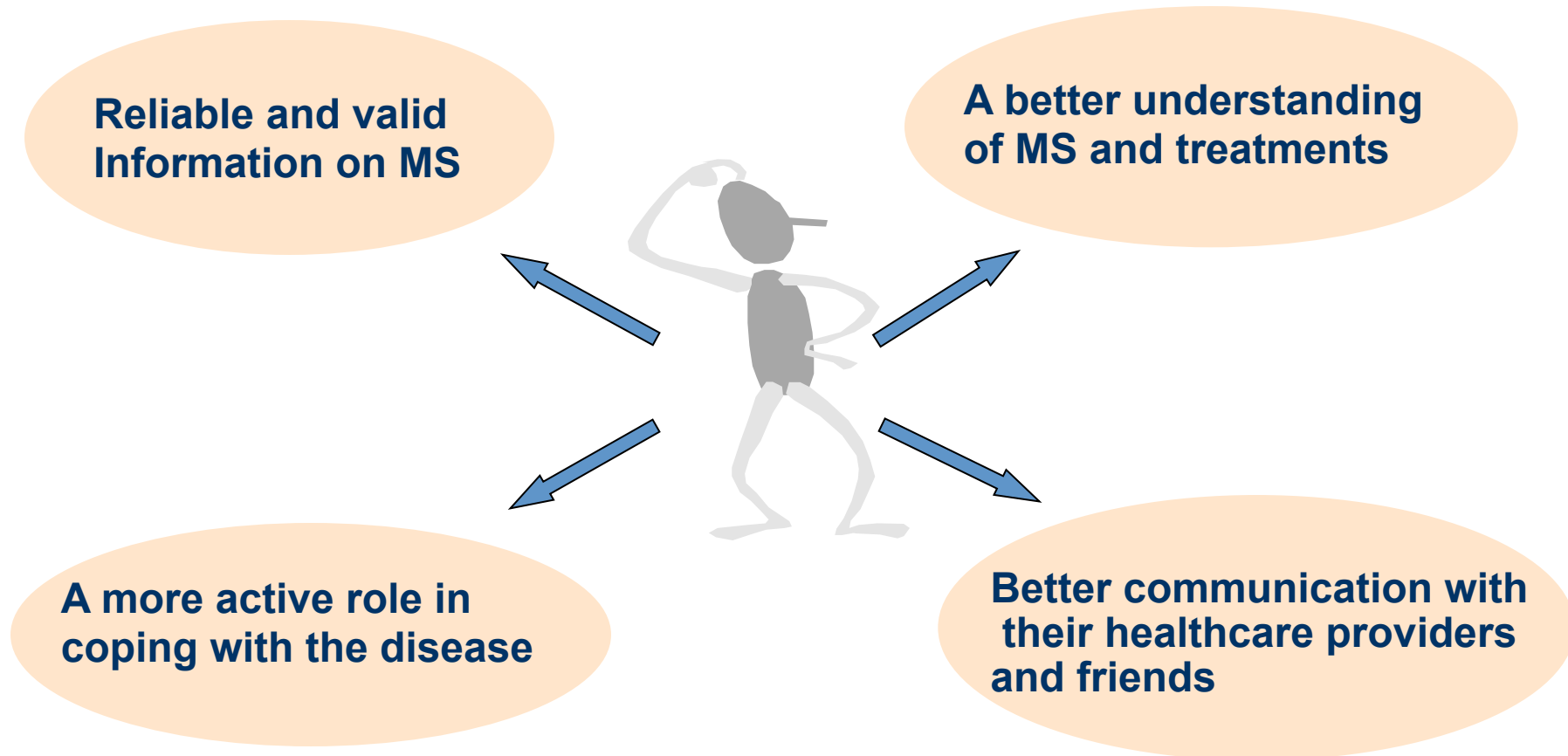
---

Doctors are the ones who decide treatments

# The expert patient

---

Today people with MS are looking for:

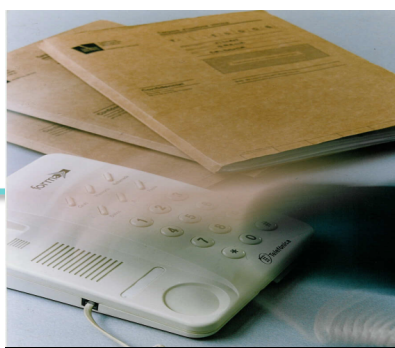




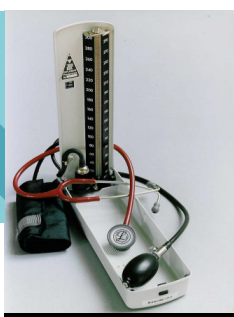
Yoga



Neurologists



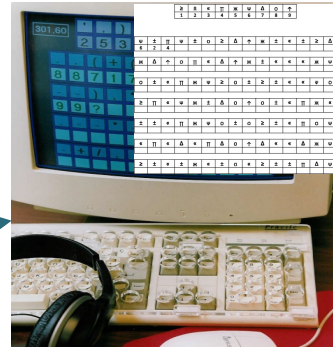
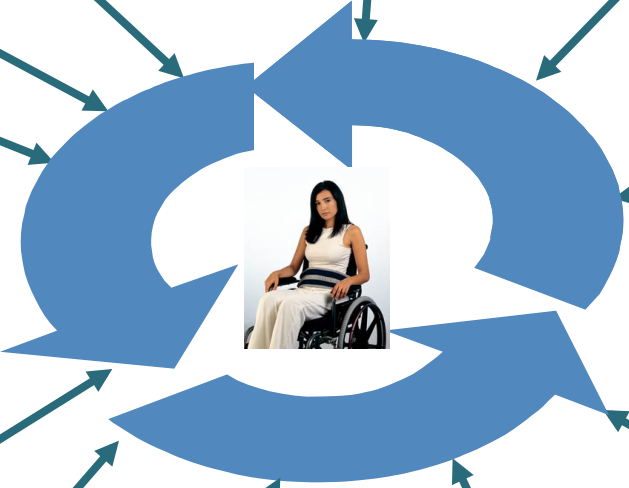
Social worker



Nursing



Physiotherapy



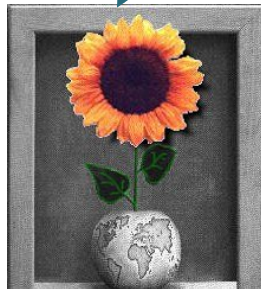
Neuro-psychologists



Occupational Therapy



Scientists



Art Therapy



Neuroradiologists



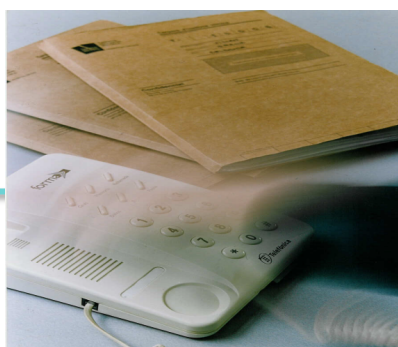
Speech therapy



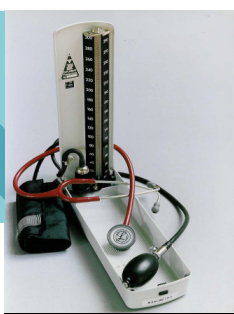
Yoga



Neurologists



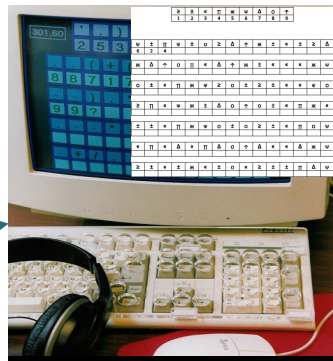
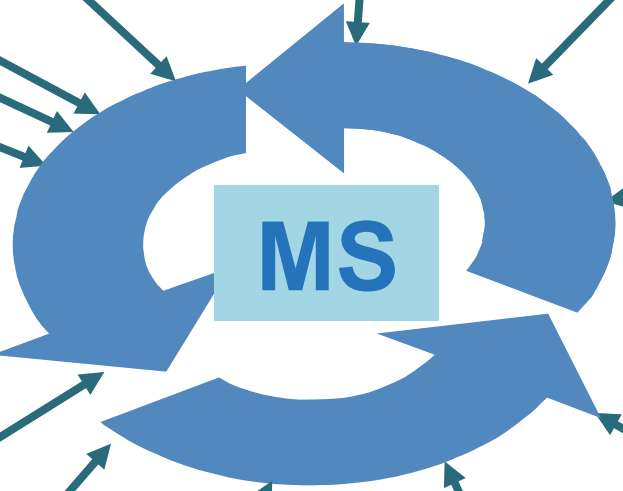
Social worker



Nursing



Physiotherapy



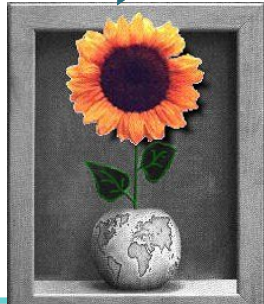
Neuro-psychologists



Occupational Therapy



Scientists



Art Therapy



Neuroradiologists



Speech therapy

DR. NIFLORES

NO TIENE NADA; ES USTED  
ASAZ HIPOCONDRIALO

BY EL  
MACHA

FLINDS  
NERVIOS

UFFFS...  
MENDOS MAL



# STROKE

---

- Intravenous thrombolysis plus mechanical thrombectomy remains the best strategy for acute ischaemic stroke with large vessel occlusion
- Flying doctors, mobile stroke units, or direct admission to the angiography suite are gaining attention
- In a series of 88 surgically resected sporadic cerebral cavernous malformations CCMs, the authors identified that 39% of lesions had *PIK3CA* somatic mutations. These data suggest that pharmacological targeted treatment (such as PIK3CA inhibitors that have shown promising results in oncology) could be the future of CCM management.

