Healthcare resource use and costs associated with patients suffering from Multiple Sclerosis 2 years before initiating ocrelizumab

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Background/Introduction

PRO-MSACTIVE (NCT03589105) was a French Phase IV study running from 2019 to 2021, designed to provide efficacy data in patients with active relapsing forms of multiple sclerosis (RMS) initiating ocrelizumab.

By complementing these clinical data with claims data from the French national health data system (SNDS), a global overview of the RMS burden can be obtained, by type of multiple sclerosis (RRMS or SPMS).

To describe healthcare costs and resource utilization (HCRU) of patients included in the PRO-MSACTIVE study, a deterministic linkage was set-up using the SNDS.

Objectives

This poster describes HCRU of patients according to MS type (Relapsing Remitting MS (RRMS) / Secondary Progressive MS (SPMS)).

Methods

Patients were included in the PRO-MSactive study from July 2018 to July 2019. All patients followed for 48 weeks, including RRMS and SPMS patients, were selected

They were linked to an SNDS extraction, consisting in all patients with a MS between January 1, 2013 and December 31, 2020, identified through diagnoses (ICD-10 code G35, from hospitalisation discharges and chronic disease status), and an injection of ocrelizumab, using a deterministic approach.

Only RMS patients with 5-year data history in the SNDS were included. HCRU and costs were described in the two years prior to ocrelizumab initiation, by 12 months period (n-1 and n-2), according to the EDSS score (< 4 versus ≥ 4), for the following healthcare expenditure items:
medications, medical visits, hospitalizations, medical devices, medical procedures, lab tests, sick leaves, disability pension and medical transports.

From the 422 patients included in the PRO-MSactive study, 371 patients were eligible to the linkage. Study flow chart is described in Figure 1.

Results

From the 291 patients linked to one of the 6,077 MS patients extracted from SNDS, 257 patients (88.3%) were RRMS. 72.9% were females, mean age was 38.5 years.
Most RMS patients were non-treatment-naïve (70.1%) and the most frequent treatment received prior to ocrelizumab initiation was fingolimod (19.2%).

RRMS: Between the [-24;-12[period to the [-12;0[period, mean care cost increased during the latter (€10,318; 95%CI:[9,034;11,602] vs. €11,676; 95%CI:[10,545;12,807], respectively). Expenses were mainly driven by MS treatments (71.4% and 53.8%, respectively) and hospitalization costs (8.1% and 18.8%, respectively).

SPMS: Mean cost decreased the year before index date (€16,859 (95%CI:[11,976;21,743] vs. €18,139 (95%CI:[12,481;23,796]). Expenses were mainly driven by hospitalization costs (26.0% during the [-24;-12[period and 26.7% during the [-12;0[period) and MS treatments (25.8% and 20.1%).
(See Figure 2)

Figure 1 : Flow Chart

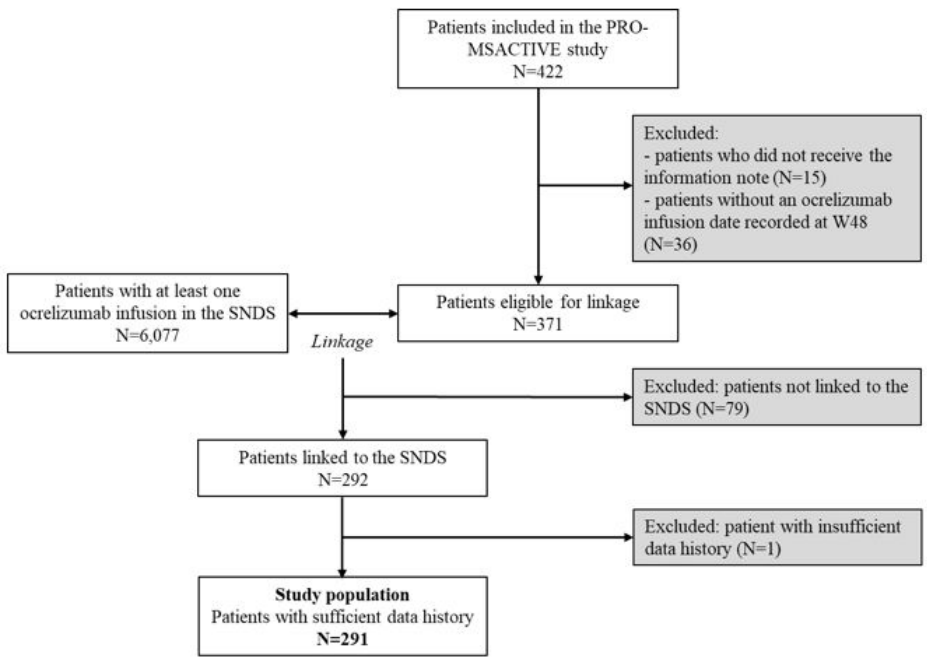
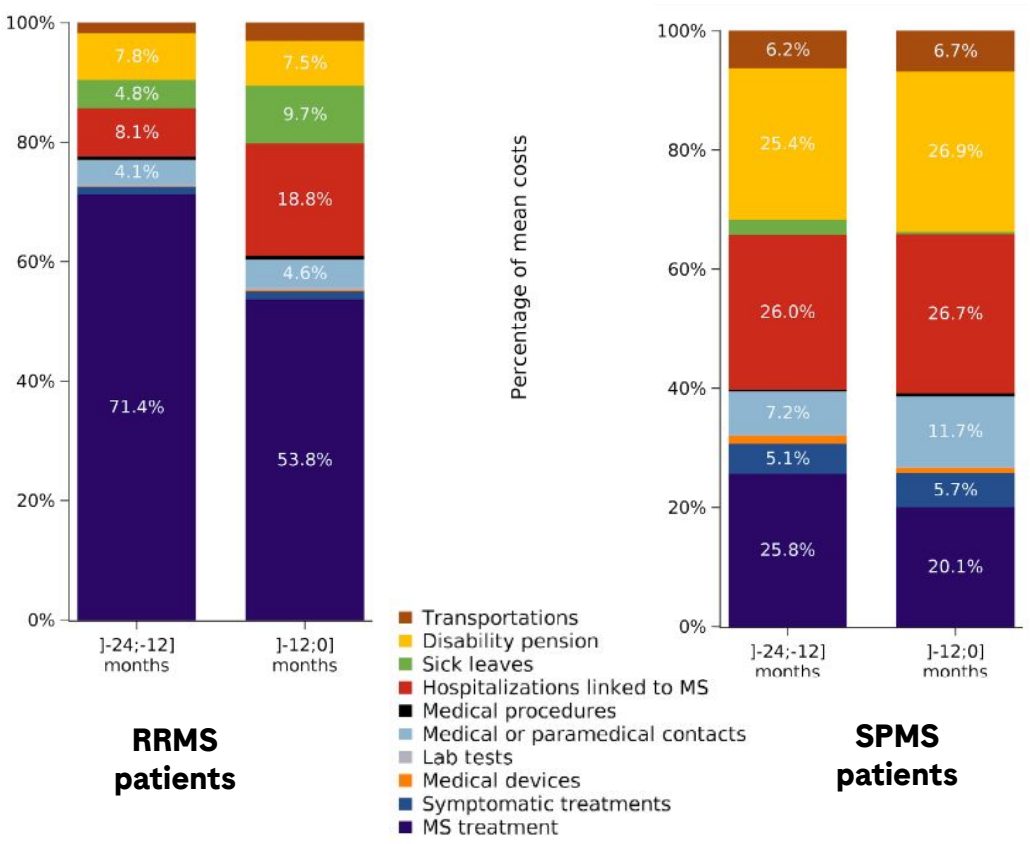


Figure 2: Distribution (%) of average costs per patient over year n-2 and n-1



Conclusion

This burden of disease study is the first to combine clinical data from a phase IV study with claims data from SNDS.

HCRU for SPMS patients seems to decrease over time, whereas several expenses for patients with RRMS have increased the year before index date, showing a disease activity, as expected for the patients included in the phase IV study.

References:
(1) Efficacy, safety and patient reported outcomes in patients with active relapsing multiple sclerosis treated with ocrelizumab: Final results from the PRO-MSACTIVE study
(2) Interactive statistical monitoring to optimize review of potential clinical trial issues during study conduct

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