

# Immunomodulatory therapy in 6427 relapsing-remitting Multiple Sclerosis (RRMS) patients over time under special consideration of switching to oral DMD: a retrospective data analysis



A. Bergmann<sup>1</sup>, K-H. Gösswein<sup>1</sup>, S. Braune<sup>1</sup>

<sup>1</sup> NeuroTransData Study Group, Neuburg (Germany)

## Background

NeuroTransData, a German neurology network of 66 outpatient sites has been collecting real world data in a Registry database for MS with more than 23,000 patients for more than 10 years.

## Objective

Longitudinal assessment of MS patients on injectable DMD who switched to oral DMD and other DMDs.

## Patients and Methods / Material and Methods

RRMS-patients stable on injectable DMDs (Avonex<sup>R</sup>, Rebif<sup>R</sup>, Betaferon/Extavia<sup>R</sup>, Copaxone<sup>R</sup>) for 4,3y (median) were analyzed for 6.1y (median) regarding clinical course and potential switch to oral and other treatments.

	Avonex <sup>®</sup> n=452	Rebif <sup>®</sup> n=762	Betaferon/Extavia <sup>®</sup> n=620	Copaxone <sup>®</sup> n=848
<b>Gender (f / m)</b>	345(76.3%) 107(23.7%)	545(71.5%) 217(28.5%)	445 (71.8%) 175(28.2%)	654(77.1%) 194(22.9%)
<b>Age (y) median</b>	39.7	41.2	42.4	42.3
<b>Disease activity (y)</b>	9.0	8.2	8.1	8,7
<b>Treatment period (y)</b>	2.5	3.2	2.9	2.9
<b>EDSS before switch</b>	2.0	2.0	2.0	2.0

Table 1: Baseline characteristics of RRMS patients switching from different injectable to oral DMDs. f: female; m: male; age/disease duration/treatment period on average in years; EDSS: median on the Expanded disability status scale.

## Results

2682 (41.7%) of these 6427 patients were switched to oral DMD. The other patients stayed on their DMD for 4.6 years (median). The main reasons for switching were insufficient therapeutic effect (34.2%), side effects (18.1%) and patient's wish (18.2%). After 1.1 years (median), 716 (26.7%) of these already switched patients were switched once again to another DMD, 123 (17.2%) switched back to their first DMD. 1735 patients (65%) remained on their first switch therapy. Observation period was 3.8 years (median).

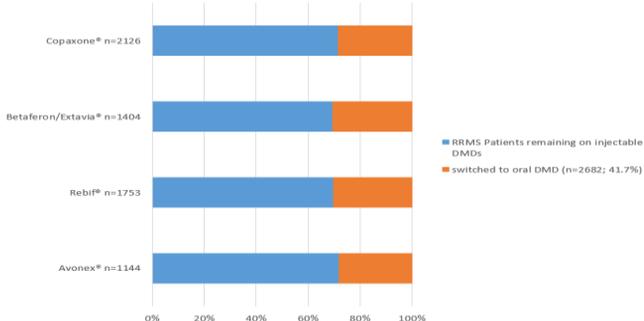


Fig. 1: RRMS patients remaining on injectable DMDs respectively switching to oral DMDs in percent in the different therapeutic groups.

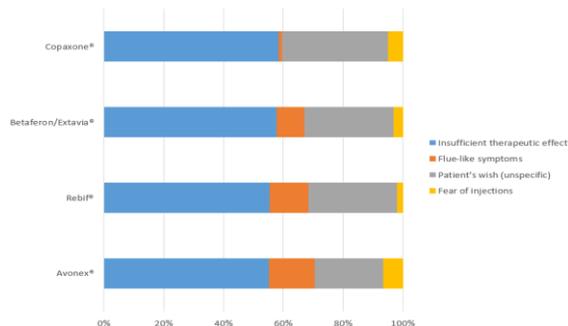


Fig. 2: Main reasons in percent for switching from injectable to oral DMDs among different therapeutic groups.

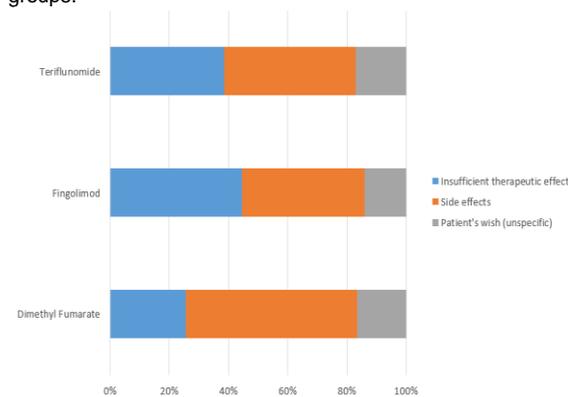


Fig. 3: Main reasons in percent for second switch from oral DMDs to another disease-modifying therapy.

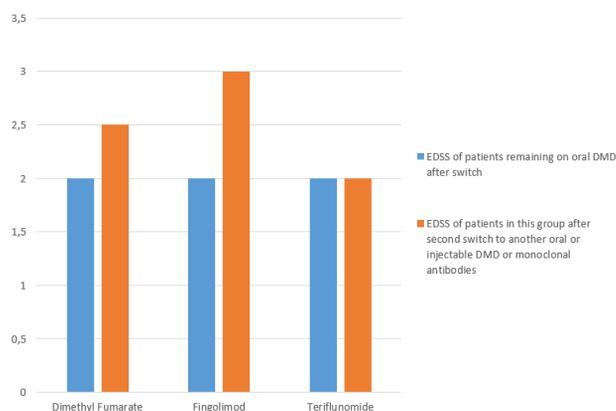


Fig. 4: Last EDSS (median) in observation period of RRMS patients remaining on therapy after first switch respectively after second switch from oral DMDs to another disease-modifying therapy.

## Conclusion

The main reason for switching from injectable to oral DMD was the therapeutic effect, followed by patient's wish and side effects. In those patients who switched a second time, side effects were the main reason for switching. Most patients (65%) who switched from injectable to oral DMDs remained on that therapy during the observation period.