

# STUDY OF THE REASONS FOR THE THERAPEUTIC DISCONTINUATION OF IMMUNE-BASED THERAPIES IN RELAPSING-REMITTING MULTIPLE SCLEROSIS

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## Background

Nowadays, 12 different therapies are available as immune-mediated therapies (IMT) for multiple sclerosis (MS) drugs. Guidelines classify these treatments as first and second-line. This variety allows treatment discontinuations (TD) under situations different from those initially planned. Apart from high disease activity or poor drug tolerance, patient comfort or lack of adherence are becoming important reasons for TD.

Treatment changing reasons in the usual practice can help better understand this reality and in future decision making.

## Purpose

Assessing reasons for TD in relapsing-remitting MS for IMT. Assessing TD causes for each kind of IMT.

## Material and methods

In this retrospective, observational study, TD for any cause with IMT for MS from August 2014 to August 2017 was studied in our centre. Treatments with no available discontinuation conditions were excluded. To achieve the objectives, IMT was divided according to: interferon-like, glatiramer acetate, teriflunomide, dimethyl-fumarate, fingolimod and natalizumab.

Reasons for TD were listed according to: (i) high disease activity, (ii) isolated radiological disease activity, (iii) complete interruption of IMT, (iv) administration patient preferences (oral drugs or pegylated interferon), (v) drug hypersensitivity reactions, (vi) injection-site reactions, (vii) lymphopenias, (viii) JC virus detection, (ix) other adverse reactions (specified) or situations.

## Results

During study period, 65 TD were performed: 60(92.30%) due to treatment switch, 3(4.61%) led to IMT complete interruption and 2(3.97%) were not correctly evaluated due to patient transfer.

**Table 1. TD causes for each kind of IMT.**

	High disease activity	Isolated radiological activity	IMT stopped	Patient preferences	Drug hypersensitivity	Injection-site reactions	Lymphopenias	Positive JC	Other situations or adverse reactions*
Interferon-like (37TD)	1	3	1	27	2	2			1
Glatiramer acetate (6TD)	2	1		1	1	1			
Teriflunomide (6TD)	3				1				2
Dimethyl fumarate (6TD)	1		1				2		
Fingolimod (3TD)	2								1
Natalizumab (5TD)			1		1			2	1

\*For interferon-like one TD was performed by flu-like symptoms, for fingolimod by pregnancy, for natalizumab by toxic hepatitis and for teriflunomide by transaminitis, and another one by diarrhea.

## Conclusions

Probably, the 27 cases reported as patient preferences are related to the most prominent INF adverse effects (injection-site reactions and flu-like symptoms) although it has not been documented.

During the study period, IMT extension variety had permitted individualized treatment adjustment according to disease clinical form, each subject progression, and patient preferences and tolerance.

Abbreviations: IMT, immune-mediated therapies; MS, multiple sclerosis; TD, treatment discontinuation;

