

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/131377/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Tortorella, C., Solaro, C., Annovazzi, P., Boffa, L., Buscarinu, M. C., Buttari, F., Calabrese, M., Cavalla, P., Cocco, E., Cordioli, C., De Luca, G., Di Filippo, M., Fantozzi, R., Ferraro, D., Gajofatto, A., Gallo, A., Lanzillo, R., Laroni, A., Fermo, S. Lo, Malucchi, S., Maniscalco, G. T., Moccia, M., Nociti, V., Paolicelli, D., Pesci, I., Prosperini, L., Ragonese, P., Tomassini, V, Clerici, V. L. A. Torri, Rodegher, M., Gherardi, M. and Gasperini, C. 2020. Informing MS patients on treatment options: a consensus on the process of consent taking. *Neurological Sciences* 41 , pp. 2249-2553. 10.1007/s10072-020-04339-z

Publishers page: <http://dx.doi.org/10.1007/s10072-020-04339-z>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See <http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



Informing MS patients on treatment options: a consensus on the process of consent taking

C. Tortorella¹ & C. Solaro² & P. Annovazzi³ & L. Boffa⁴ & M. C. Buscarinu⁵ & F. Buttari⁶ & M. Calabrese⁷ & P. Cavalla⁸ & E. Cocco⁹ & C. Cordioli¹⁰ & G. De Luca¹¹ & M. Di Filippo¹² & R. Fantozzi⁶ & D. Ferraro¹³ & A. Gajofatto¹⁴ & A. Gallo¹⁵ & R. Lanzillo¹⁶ & A. Laroni^{17,18} & S. Lo Fermo¹⁹ & S. Malucchi²⁰ & G. T. Maniscalco²¹ & M. Moccia^{16,22} & V. Nociti²³ & D. Paolicelli²⁴ & I. Pesci²⁵ & L. Prosperini¹ & P. Ragonese²⁶ & V. Tomassini^{27,28} & V. L. A. Torri Clerici²⁹ & M. Rodegher³⁰ & M. Gherardi³¹ & C. Gasperini¹ & on behalf of the RIReMS Group

1. Department of Neurosciences, San Camillo Forlanini Hospital, Rome, Italy
2. Department of Rehabilitation, Mons L Novarese Hospital, Moncrivello, Italy
3. Multiple Sclerosis Center, ASST Valle Olona, PO di Gallarate, (VA), Italy
4. Department of Neurosciences, MS Center, Tor Vergata University, Rome, Italy
5. Department of Neurosciences, Mental Health and Sensory Organs Sapienza University Rome, Rome, Italy
- 6 I.R.C.C.S. Istituto Neurologico Mediterraneo NEUROMED, Pozzilli, Italy
7. Neurology B, Department of Neurosciences Biomedicine and Movements, University of Verona, Verona, Italy
8. MS Center (P.C.), City of Health & Science University Hospital, Turin, Italy
9. Department Medical Science and Public Health, University of Cagliari, Cagliari, Italy
10. Multiple Sclerosis Center, ospedale di Montichiari, Spedali Civili di Brescia, Montichiari, Italy
11. Neurology Clinic, Multiple Sclerosis Center SS. Annunziata Hospital, Chieti, Italy
12. Clinica Neurologica, Dipartimento di Medicina, Università di Perugia, Perugia, Italy
13. Department of Biomedical, Metabolic and Neurosciences, University of Modena and Reggio Emilia, Modena, Italy
14. Department of Neuroscience, Biomedicine and Movement Sciences, University of Verona, Verona, Italy
15. Department of Medical, Surgical, Neurological, Metabolic and Aging Science, University of Campania, Naples, Italy
16. Multiple Sclerosis Clinical Care and Research Centre, Department of Neuroscience, Reproductive Science and Odontostomatology, Federico II University, Naples, Italy
17. Department of Neuroscience, Ophthalmology, Genetics, Maternal and Child Health and Center of Excellence for Biomedical Research, University of Genova, Genoa, Italy
18. IRCCS Ospedale Policlinico San Martino, Genoa, Italy
19. Clinica Neurologica A.O.U. Policlinico-Vittorio Emanuele Catania, Catania, Italy Neurologia
20. Neurologia 2-CRESM, AOU San Luigi Gonzaga, Orbassano, Italy
21. Department of Neurology and Stroke Unit, "A. Cardarelli Hospital", Naples, Italy
22. Queen Square MS Centre, Department of Neuroinflammation, UCL Queen Square Institute of Neurology, Faculty of Brain Sciences, University College London, London, UK
23. Istituto di Neurologia, Fondazione Policlinico Universitario 'A Gemelli' IRCCS, Rome, Italy
24. Department of Basic Medical Sciences, Neurosciences, and Sense Organs, University of Bari, Bari, Italy Ospedale di Vaio, Centro SM, Fidenza, Parma, Italy
25. Department of Biomedicine, Neurosciences and Advanced Diagnostic, Dipartimento di Biomedicina, Neuroscienze e Diagnostica Avanzata, Palermo, Italy
26. Department of Neurosciences, Imaging and Clinical Sciences, School of Medicine, Institute for Advanced Biomedical Technologies (ITAB), University of Chieti-Pescara "G. d'Annunzio, Chieti, Italy
- 27 Division of Psychological Medicine and Clinical Neurosciences, Cardiff University School of Medicine, University Hospital of Wales, Cardiff, UK
28. Neuro-immunology and Neuromuscular Diseases Unit, IRCCS Foundation Carlo Besta Neurological Institute, Milan, Italy
29. Department of Neurology, San Raffaele Scientific Institute, Vita-Salute San Raffaele University, Milan, Italy
30. Medicina Legale AUSL Valle D'Aosta, Aosta, Italy

Abstract

In the last years, change in multiple sclerosis (MS) therapeutic scenario has highlighted the need for an improved doctor-patient communication in advance of treatment initiation in order to allow patient's empowerment in the decision-making process.

Aims

The aims of our project were to review the strategies used by ItalianMS specialists to inform patients about treatment options and to design a multicentre shared document that homogenizes the information about disease-modifying treatment (DMTs) and the procedure of taking informed consent in clinical practice.

Results

The new resource, obtained by consensus among 31 neurologists from 27 MS Centres in Italy with the supervision of a medicolegal advisor, received the aegis of Italian Neurological Society (SIN) and constitutes a step toward a standardized decision process around DMTs in MS.

Keywords Multiple sclerosis . Disease-modifying treatment . Informed consent

Background

Over the last 10 years, multiple sclerosis (MS) therapeutic scenario has rapidly evolved with the introduction of new highly effective, but more risky disease-modifying treatments (DMTs). This change has increased the complexity of patient's monitoring and has highlighted the need for an improved doctor-patient communication in advance of treatment initiation [1–3].

The choice of the “best” DMT for every single person with MS (PWMS) must be the resultant of a shared analysis of both the specific clinical, biological and MRI prognostic factors of the diseases and the DMT characteristics, side effects and potential risks. Data concerning risks and side effects derives not only from randomized clinical trials (RCTs), obtained in relatively small cohorts of patients with a relatively short follow-up period, but also from active pharmacovigilance and real-world post-marketing observations. A patient-centred care requires, indeed, a greater attention on communication between PWMS and physicians about treatment options, as this allows patient's empowerment in the decision-making process, sets correct patient's expectations, prioritizes his needs and ultimately improves adherence and active participation to the treatment plan [4]. For these reasons, the Italian legislation (DLgs 219/-December 2017) states the mandatory nature of informed consent on care related decisions in clinical practice and requires the proofs of treatment consent (acceptance or denial) to be stored in the patient's clinical records.

Furthermore, an active engagement of PWMS could increase their knowledge of the treatments, including the longitudinal clinical measure requested to monitor and prevent long-term treatment side effects. Different tools (including educational programs, information aids and decision aids) have been developed all over the world in order to meet the information needs of PWMS [5, 6]. However, the possibility of sharing written information about DMTs among different MS centres is extremely challenging. Standardising the information would support PWMS who need to move from one centre to another and who, often in virtual community, share DMTs related information and might help clinicians in their clinical practice.

The aims of our project were to review the strategies used by Italian MS specialists to inform PWMS about treatment options and to design a multicentre shared document that homogenizes the information about MS DMTs and the procedure of taking informed consent in clinical practice.

Methods

Thirty-one neurologists (age range, 33–57 years old), representative of 27 tertiary Italian MS Centres and a medico-legal advisor expert in communication and procedure of consent, participated in the project. The 27 MS centres are representative of different geographical area in Italy (16 Italian regions are represented) and include both big and smaller MS centres. All the neurologists had a long experience in treating MS lasting at least 5 years.

The work lasted for about 18 months and was organized into four steps.

The first step consisted in collecting existing documents of information and consent routinely used in different MS centres to inform patient about DMTs options and side effects. All available documents were then analysed by the medico-legal advisor who underlined criticisms and major flaws of the existing material and highlighted medico-legally relevant criteria that should be met in the organization of a new resource. In the second step, two plenary discussions were planned in order to review the medico-legal advisor criticisms on the available materials and, informed by these criticisms, to develop a structured template that could be used as a model for the new resource. In the third step, the whole cohort of participants was divided into small groups (2–4 members per group) to focus on the development of specific documents for individual DMTs. The fourth step consisted in two new plenary meetings for the discussion of the elaborated documents and the final approval by all members of the panel and by the medicolegal advisor.

Results

In daily clinical practice, all MS centres participating in this project already used written material to support patient information and to acquire informed consent, when a second-line therapy or an off-label drug is prescribed. Eight out of 28 (29%) of the participating MS centres used written material to support patient information and to acquire informed consent when a first-line treatment has to be initiated. The analysed in-use documents appeared to be very heterogeneous among MS centres and sometimes lacking of key information (i.e. alternatives to the proposed treatment or specific information about pregnancy or drug to drug interactions). The main criticisms of these documents underlined by the medicolegal advisor were: The language in which the current resources are written:

- The information was conveyed in technical terms or jargon.
- The structure of the documents, in which information about medications, indications, side effects and declaration of consent are not clearly separated in different sections, thus generating confusion.
- The absence of a specific section on alternatives to the proposed treatment, their risks and benefits.

The absence of a section, in which the risks and benefits of declining any treatment are stated.

Informed by these criticisms, a standardized template for the construction of a new resource was developed. The new resource consisted of two different parts: an information sheet, specific for each drug, and a declaration of consent which was independent on the treatment proposed. Each information sheet includes six key information: (1) a statement on the diagnosis and prognosis of MS, (2) the indication of the proposed treatment, (3) the known risks and the expected side effects of the proposed treatment, (4) the effects of the proposed DMT on fertility, pregnancy and lactation, (5) the possible alternative treatments to the treatment proposed, their risks and benefits, as well as the risks and benefits of declining any treatment and (6) the planned monitoring, including the possibility of stopping or switching between treatments.

The declaration of consent provides the possibility of a declaration of an impartial witness and includes the written expression of consent to use personal anonymized data for scientific purpose (Table 1). The collection and the exploitation of this data need the approval of the Ethical Local Committee and are under the responsibility of each single clinical centre where PWMS is followed in agreement with the European General Data Protection Regulation (GDPR), the guidelines of the Italian Data Protection Authority and the Italian legislation on consent.

Table 1 Structure of the inter-centre shared template for information about DMTs and consent taking
Part 1: information sheet

1. What is MS?
2. MS prognosis
3. What is the “proposed DMT” (“active principle”)
4. Why we suggest you to take that DMT to treat MS
5. What are the most relevant side effects of the proposed DMT
6. Effects of the proposed DMT on fertility, pregnancy and lactation
7. Which are the possible alternative treatments
8. Which are the risks of refusing or delaying treatment
9. How to use the proposed treatments: administration and monitoring

Part 2: declaration of consent

1. Consent to be treated with the proposed DMT and to accept all monitoring procedures necessary for the specific treatment
2. Privacy statements
3. Consent to use, in aggregate mode, patient personal information for scientific purpose.
4. Consent for eventual impartial witness (in case of subjects unable to read)

After the small group work, 14 new information sheets, one for each available MS DMTs, and a declaration of consent, were obtained. After discussions and revisions all participant neurologists and the medicolegal advisor reached consensus on the new documents. The new resource was submitted for the evaluation of MS study Group of the Italian Neurological Society and received the aegis of Italian Neurological Society (SIN). The new resource is now published on the SIN website (<http://www.neuro.it>) and is freely downloadable at <http://www.rirems.it/consensi-dmts/>. The resource is updated annually by the panel members on the basis of published evidence and available pharmacovigilance data.

Discussion

Available and in-use informative material about DMTs is very heterogeneous among Italian MS centres and sometimes lack of key information. To the best of our knowledge, this work is the first attempt to build a standardized, medico-legally supervised, disease-specific inter-centres shared resource that is freely available and regularly updated in order to facilitate and support the information process of PWMS about DMTs. Clear and complete information facilitating patient's understanding of treatment options is the basis for patient's engagement and corrected informed consent taking [7, 8]. The use of standardized information written resource allows physicians to meet the minimal standard of information, to demonstrate that the process of information has occurred and to provide the PWMS with a memorandum of the discussed items that can be shared with his significant others or primary care physician. Furthermore, the possibility to share the load of the regular update of the resource is a clear advantage for the MS community.

Although developed as a standardized tool, this written information can be flexibly adapted to the individual communication setting and cannot replace the specific patient-physician interaction [8] aimed to shared decisions, respectful of patient's needs and views.

This work represents only the first step towards an improved shared decision process around DMTs in MS, but it has already produced impact since it has been adopted by the National Neurological Society. Future directions of this work will be the validation in clinical practice of this multicentre shared document with the stakeholders of the information process (i.e. PWMS, MS nurses, MS neurologists not participating to the construction of the resource); with this objective, a qualitative study is ongoing.

Compliance with ethical standards

Conflict of interests CT has received honoraria for advisory board and speaking honoraria from Biogen, Merck, Teva, Serono, Roche, Novartis and Sanofi-Genzyme. CS received advisory board membership of the following companies: Biogen and Merck Serono; speaking honoraria from Bayer Schering, Biogen, Merck Serono, Almirall, Teva, Genzyme; research grants and support from the Italian MS Society Research Foundation (Fondazione Italiana Sclerosi Multipla). PA honoraria for lecturing and participation in advisory boards and travel expenses for attending congresses and meetings from Merck Serono, Biogen, Teva, Sanofi-Aventis, Almirall, Roche and Novartis. LB has nothing to disclose. MCB received speaking honoraria and/or consultant fees from Biogen, Merck Serono, Sanofi-Genzyme, Teva, Novartis and Roche. FB has served on advisory boards for Teva and Roche and has received travel grants and/or speaker honoraria from Merck Serono, Teva, Biogen, Sanofi-Genzyme and Novartis. MC participated on advisory boards for and received speaker or writing honoraria and funding for travelling from Bayer, Biogen Idec, Genzyme, Merck, Novartis, Roche and Teva. PC has served on scientific advisory boards for Merck Serono, Sanofi-Genzyme and Roche; has received speaker honoraria from Genzyme, Teva, Biogen, Novartis and Merck Serono; has received travel funding from Almirall, Biogen, Sanofi-Genzyme, Novartis, Merck Serono and Teva; and has been a consultant for Teva, Sanofi-Genzyme and Merck Serono. EC served on scientific advisory boards and received honoraria for speaking from Almirall, Bayer, Biogen, Merck Serono, Novartis, Sanofi-Genzyme and Teva. CC has nothing to disclose. MDF participated on advisory boards for and received speaker or writing honoraria and funding for travelling from Bayer, Biogen Idec, Genzyme, Merck, Novartis, Roche and Teva. RF has served on advisory boards for Roche, Biogen, Novartis, Merck Serono and has received travel grants and/or speaker honoraria from Teva and Sanofi-Genzyme. DF has served on scientific advisory boards for Biogen, Roche and Merck Serono and has received travel grants and/or speaking honoraria from TEVA, Merck, Biogen, Novartis and Sanofi-Genzyme. AG received research funding and advisory board compensation from Merck Serono. AG has nothing to disclose. RL received personal fees and financial support from Almirall, Novartis, Merck Serono, Biogen, Teva and Genzyme. LP received consulting fees from Biogen, Novartis and Roche; speaker honoraria from Biogen, Genzyme, Merck Serono, Novartis and Teva; travel grants from Biogen, Genzyme, Novartis and Teva; and research grants from the Italian MS Society Associazione Italiana Sclerosi Multipla) and Genzyme. AL received lecturing honoraria from Biogen and Teva; consulting fees from Sanofi-Genzyme, Biogen, Merck and Roche; and funding for travel from Sanofi-Genzyme, Biogen, Merck and Teva. SLF received funding for travel and for advisory board from Genzyme, Biogen Idec, Teva, Merck and Serono. SM has nothing to disclose. GTM received personal compensation from Serono, Biogen and TEVA for public speaking and advisory boards. MM has received research grants from ECTRIMS-MAGNIMS and Merck and honoraria from Biogen, Merck and Sanofi-Genzyme. VN has served on scientific advisory boards for Novartis, Teva, Biogen Idec, Sanofi, Genzyme and Bayer Schering and has received funding for travel and speaker honoraria from Teva, Biogen Idec, Bayer Schering, Merck Serono, Almirall, Genzyme and Novartis. DP received honoraria for consultancy and/or speaking from Biogen Idec, Merck Serono, Bayer Schering, Sanofi-Aventis, Teva, Novartis and Genzyme. IP has nothing to disclose. LP received consulting fees from

Biogen, Novartis and Roche; speaker honoraria from Biogen, Genzyme, Merck Serono, Novartis and Teva; travel grants from Biogen, Genzyme, Novartis and Teva; research grants from the Italian MS Society (Associazione Italiana Sclerosi Multipla) and Genzyme. PR received travel expenses or honoraria for consultancy from Merck Serono, Biogen Idec, Novartis, Sanofi-Genzyme and Teva. VT has received research support and honoraria from Biogen Idec and honoraria and travel grants from Biogen Idec and Novartis. VTC received personal compensation from Novartis, Almirall, Genzyme and Teva for public speaking, editorial work and advisory boards. MR has nothing to disclose. MG has nothing to disclose. CG has received compensation for consulting from Bayer HealthCare Pharmaceuticals and Biogen Idec and as a speaker for lectures from Biogen Idec, Bayer HealthCare Pharmaceuticals, Genzyme, Merck Serono, Novartis and Teva Pharmaceutical Industries. RIREMS meetings during the planning and the conduction of the project were supported by an unrestricted contribution by Merck Serono. The sponsor only contributed to the logistics of the meetings but had no role in the planning, the study design or the conduction of the project.

References

1. Lorefice L, Mura G, Coni G et al (2013) What do multiple sclerosis patients and their caregivers perceive as unmet needs? *BMC Neurol* 13:177
2. Heesen C, Kasper J, Köpke S, Richter T, Segal J, Muhlhauser I (2007) Informed shared decision making in multiple sclerosis—inevitable or impossible? *J Neurol Sci* 259(1–2):109–117
3. Forbes A, While A, Taylor M (2007) What people with multiple sclerosis perceive to be important to meeting their needs. *J Adv Nurs* 58(1):11–22
4. Colligan E, Metzler A, Tiryaki E (2017) Shared decision-making in multiple sclerosis. *Mult Scler* 23(2):185–190
5. Köpke S, Solari A, Rhan A, Khan F, Heensen C, Giordano A (2014) Information provision for people with multiple sclerosis. *Cochrane Database Syst Rev* 4:CD008757
6. Heesen C, Solari A, Giordano A, et al. Decisions on multiple sclerosis immunotherapy: new treatment complexities urge patient engagement. *J Neurol Sci* 2011; 306(1–2): 192–197
7. Hall DE, Prochavaza AV, Fink AS. Informed consent for clinical treatment. *CMAJ* 2012; 20;184(5):533–40
8. Spatz E, Krumholz HM, Moulton BW. The new era of informed consent getting to a reasonable-patient standard through shared decision making. *JAMA* 2016; 17;315(19):2063–4