MULTIPLE SCLEROSIS TREATMENT AND HOLISTIC PATIENT CARE CONSENSUS BY THE SPANISH SOCIETY OF NEUROLOGY

6-013

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INTRODUCTION

- Patients diagnosed with multiple sclerosis (MS) encounter many obstacles at diagnosis, monitoring and treatment [1-4].
- The availability of a wide range of disease modifying therapies (DMTs) present a challenge given the absence of reliable biomarkers to predict their effectiveness and safety.
- Effective management of MS requires the development of clear recommendations, guidelines and consensus. Previous guidelines did not emphasize the importance of initiating treatments with high efficacy (HE)-DMTs [5-9].
- Additionally, the increasing number of remote follow-ups, along with special situations as pregnancies, complicate the process of therapeutic decision-making.

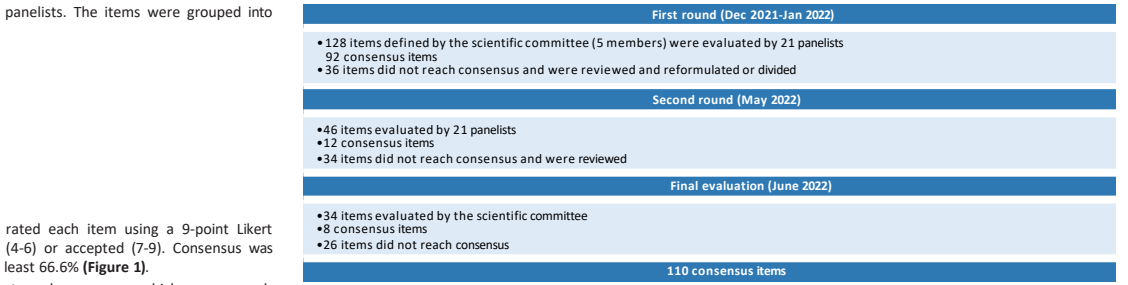
OBJECTIVE

- Our objective of this collaborative project was to develop a comprehensive set of recommendations for the management of patients with multiple sclerosis (MS) within the Spanish clinical practice [10].

METHODS

- The development of the recommendations employed the Delphi methodology: an iterative process ensuring participant anonymity and that incorporates the participants' feedback.
- The scientific committee was formed by five nationally recognized MS experts. This committee undertook a literature review, identified relevant dimensions and items and extended invitations to panelists. The items were grouped into nine dimensions:
  1. Early diagnosis
  2. Early start of DMTs
  3. Escalation vs early start of HE-DMTs
  4. Face-to-face and remote follow-up
  5. Detection of suboptimal response and treatment optimization
  6. Patient perspective
  7. Biomarkers
  8. Pregnancy
  9. Vaccination
- The panelists were 21 experts in MS from different regions of Spain. They rated each item using a 9-point Likert scale and those items were classified as either rejected (1-3), indeterminate (4-6) or accepted (7-9). Consensus was deemed to have been reached when the agreement among the panelists was at least 66.6% **(Figure 1)**.
- Feedback from the initial round was used to revise and refine items that did not reach consensus, which were re-evaluated in the second round **(Figure 1)**.

Figure 1: The Delphi method process



Some consensus items from round 1 also move to round 2; for this reason, the sum of the number of consensus items in the first round, second round and final evaluation (112) is higher than the number of items agreed upon at the end (110).

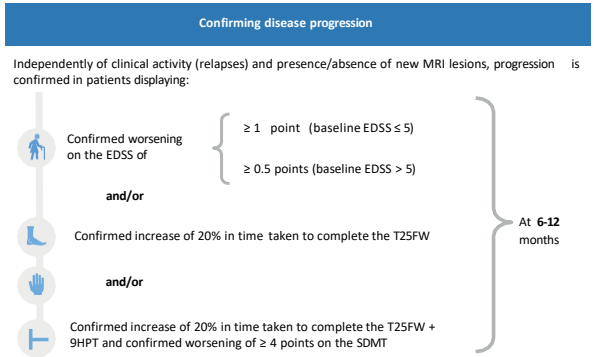
RESULTS

- Here we present a selection of items that have significant implications for clinical practice.

Diagnosis and treatment with DMTs

- The panel recommended the incorporation of assessments of optic nerve lesions and spinal MRI into the diagnostic process to enhance the information available for therapeutic decision-making.
- Early identification of progression can be very challenging. The panel considered that progression can be confirmed upon detection of worsening measures of disability, functional examination of the lower limbs and upper limbs and cognitive assessment, together with the presence or absence of new MRI lesions **(Figure 2)**.

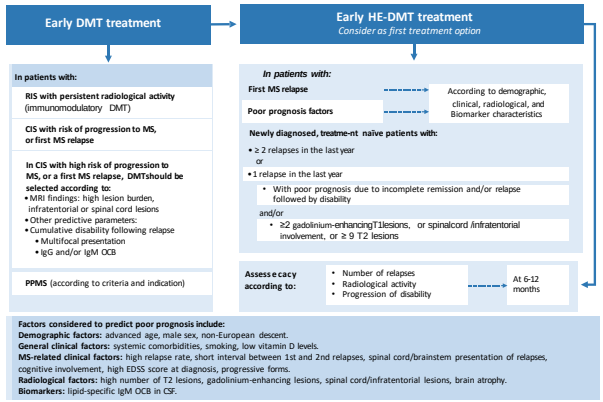
Figure 2: Assessments for confirming disease progression



9HPT: Nine-Hole Peg Test; EDSS: Expanded Disability Status Scale; SDMT: Symbol Digit Modalities Test; T25FW: Timed 25-Foo Walk test.

- The initial treatment should not be determined by a sequence of "treatment lines", but rather should be based on the presence or absence of poor prognostic factors that indicate a higher risk of relapse or progression of disability **(Figure 3)**.

Figure 3: Early onset of disease-modifying treatment

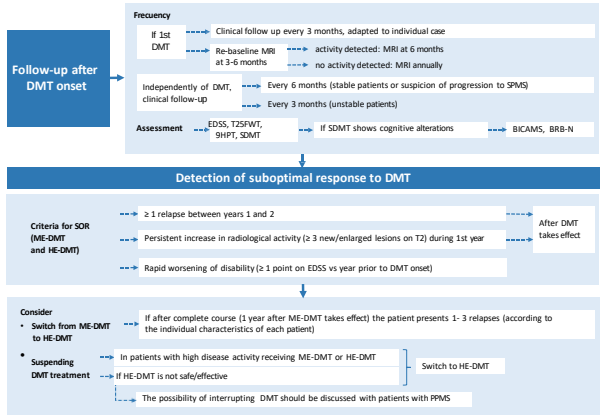


CIS: clinically isolated syndrome; CSF: cerebrospinal fluid; DMT: disease-modifying therapy; MRI: magnetic resonance imaging; MS: multiple sclerosis; OCB: oligoclonal bands; PPMS: primary progressive MS; RIS: radiologically isolated syndrome.

Follow-up, detection of suboptimal response and treatment optimization

- While telemedicine may be a supplementary or alternative approach for certain follow-up consultations, an in-person follow-up is recommended in some situations, as after the initiation of the first DMT (Figure 4) or for those patients exhibiting instability.
- Treatment should be switched if a suboptimal response is detected. The panel agreed on criteria that should be used to identify suboptimal response in patients receiving DMTs **(Figure 4)**.

Figure 4: Follow-up during treatment and after detection of suboptimal treatment response



9HPT: Nine-Hole Peg Test; BICAMS: Brief International Cognitive Assessment for Multiple Sclerosis; BRB-N: Brief Repeatable Battery of Neuropsychological Tests; DMT: disease-modifying treatment; EDSS: Expanded Disability Status Scale; HE-DMT: high-efficacy DMT; ME-DMT: moderate-efficacy DMT; MRI: magnetic resonance imaging; MS: multiple sclerosis; PPMS: primary progressive MS; SDMT: Symbol Digit Modalities Test; SOR: suboptimal response; SPMS: secondary-progressive MS; T25FW: Timed 25-Foot Walk test.

Biomarkers

- The majority of biomarkers lack reliability and utility in routine clinical practice.
- Serum levels of neurofilament light chain (NfL) could be a feasible biomarker to predict disease progression, response to treatment and for follow-up.
- Immunoglobulin M (IgM) oligoclonal bands (OCBs) are a useful and feasible biomarker to predict prognosis of the disease.

Pregnancies

- In women considering becoming pregnant, it is recommended to optimize treatment and delay pregnancy to stabilize the patient.
- If an unplanned pregnancy occurs, the risk/benefit of each DMT should be evaluated.

CONCLUSIONS

- This consensus offers guidelines for the holistic care of MS patients within Spanish clinical setting [10].
- It underscores the importance of early diagnosis and the initiation of DMTs.
- Suboptimal response is characterized by relapses, new lesions on MRI, or a rise in confirmed disability. Upon identifying a suboptimal response, the approach to treatment should be adjusted, ensuring that HE-DMTs are continued in cases where the patient's condition remains stable.
- Currently, few biomarkers are considered feasible in routine clinical practice. NfL and IgM OCBs garnered substantial agreement for their utility in tracking the evolution of the disease.
- We expect that these guidelines will enhance patient care and subsequently improve the quality of life for those living with MS.

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Conflicts of interest

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