Brain health: time matters in multiple sclerosis – developmental process and objectives of international consensus policy recommendations

Kathleen Costello,¹ Helmut Butzkueven,² Suhayl Dhib-Jalbut,³ Jeremy Hobart,⁴ Gisela Kobelt,⁵ George Pepper,⁶ Maria Pia Sormani,⁷ Christoph Thalheim,⁸ Anthony Traboulsee,⁹ Timothy Vollmer,¹⁰ Gavin Giovannoni¹¹

¹Vice President, Healthcare Access, National Multiple Sclerosis Society, New York, USA; ²Melbourne Brain Centre, Royal Melbourne, Parkville, VIC, Australia; ³Department of Neurology, RUTGERS Robert Wood Johnson Medical School, New Brunswick, USA; ⁴Plymouth University Peninsula Schools of Medicine and Dentistry, Plymouth, UK; ⁵European Health Economics, Mulhouse, France; ⁶Shift.ms, Leeds, UK; ⁷Biostatistics Unit, University of Genoa, Genoa, Italy; ⁸Patient Advocate in Multiple Sclerosis, Brussels, Belgium; ⁹Department of Medicine, University of British Columbia, Vancouver, Canada; ¹⁰Department of Neurology, University of Colorado Denver, Aurora, USA; ¹¹Queen Mary University London, Blizard Institute, Barts and The London School of Medicine and Dentistry, London, UK

Background

- Disease understanding, diagnostic criteria, treatment options and monitoring procedures in multiple sclerosis (MS) are rapidly evolving.
- Major policy changes are needed, however, in order to translate these advances into improved outcomes.
- Achieving lasting change requires the support of many groups, including patient organizations, healthcare professionals, policy makers, payers and bodies that conduct health technology appraisals (HTAs).

Objectives

- To describe the development of consensus policy recommendations on diagnosis, therapeutic strategies and improving access to treatment in MS.
- To outline the strategy for global dissemination and implementation of these recommendations.

Methods

- A literature survey guided by the lead author of the report (Professor Giovannoni) and supported by professional medical writers examined:
 - current practices in diagnosis, treatment and management
 - definitions of disease activity
 - barriers to accessing disease-modifying therapies (DMTs)
 - personal and economic impacts of MS.
- A report containing policy recommendations was developed by multidisciplinary author and working groups comprising clinicians, researchers, specialist nurses, health economists and representatives from patient organizations.
 - The author group (10 people) developed an outline, participated in structured consensus conferences on March 2 and May 22, 2015, reviewed and contributed to all four drafts and approved the final report.
- The working group (14 people) participated in the second conference and contributed to two drafts and the version for approval.
- The report, *Brain health: time matters in multiple sclerosis*,¹ was published on October 6, 2015.
- This marked the public launch of the ongoing MS Brain Health initiative (Figure 1).²

Results

Therapeutic strategy

- The report recommends a clear treatment goal: to preserve central nervous system tissue and maximize lifelong neurological reserve by reducing disease activity.
- A therapeutic strategy based on proactive monitoring and shared decision-making will help to achieve this. Early diagnosis, improved access to DMTs and generating real-world evidence are also key components (Figure 2).
- Enabling and promoting widespread adoption of this therapeutic strategy has the potential to improve outcomes for people with MS.

Policy recommendations

- The policy recommendations that aim to facilitate the therapeutic strategy are grouped under three overarching recommendations.
 - Minimize delays in diagnosis of MS and in the time to treatment initiation.
 - Set goals for treatment and ongoing management that will optimize outcomes for every person with MS.
 - **Consult the most robust evidence base possible when making treatment and** management decisions.

- specialist nurses and their professional bodies; patient organizations; healthcare pharmaceutical companies; and curators of registries and databases.
- Barriers to treatment access in the USA include availability and affordability. **Some insurance companies require treatment failure on a DMT from their** preferred formulary before they will reimburse a different DMT.^{3,4}
- All DMTs cost at least \$50 000 per year; this is 2–3 times more expensive than in
- Australia, Canada or the UK.⁵
- most appropriate treatment strategy that optimizes effectiveness and safety for each individual.
- a 'brain-healthy' lifestyle (including actively screening for and managing comorbidities), the benefits of early treatment with a DMT, the likely consequences of inadequate or suboptimal treatment and the goal of minimizing disease activity while optimizing safety.

Long-term dissemination strategy

- The MS Brain Health initiative created a Steering Committee² to guide its ongoing recommendations.
- The report has been endorsed by 26 professional and patient organizations, including the Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS), the Consortium of Multiple Sclerosis Centers (CMSC), the International Organization of Multiple Sclerosis Nurses (IOMSN), the Multiple Sclerosis Society of Canada and the National Multiple Sclerosis Society.
 - The multidisciplinary nature of the author and working groups facilitated a number of these endorsements.
- MS Brain Health material aimed at patients and advocates has been proactively shared by endorsers and other individuals on social media.
- The @MSBrainHealth Twitter account has gained over 1000 followers⁶ and 245 000 tweet impressions.⁷
- MS Brain Health champions and endorsing organizations in more than 40 countries (Figure 3) are positioned to share and publicize the report and its key recommendations at a local level.
- health perspective on MS.
- A slide deck for presentation to healthcare professionals is available,⁸ and another for presentation to patients will be published soon.

Conclusions

- Brain health: time matters in multiple sclerosis, an international consensus report published in October 2015, was developed through structured discussions conducted by multidisciplinary author and working groups.
- The report presents an evidence-based position for a therapeutic strategy involving proactive monitoring and shared decision-making. Early diagnosis, improved treatment access and generating real-world evidence are also key.
- The policy recommendations are aimed at a range of stakeholders who can influence the quality of care.

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Each of 18 individual recommendations is directed towards at least one of: clinicians, providers; HTAs; reimbursement agencies; insurance carriers; regulatory authorities;

The recommendations of particular relevance to the USA are as follows. Improve access to treatment by encouraging the continuing investigation, development and use of: (i) cost-effective therapeutic strategies; (ii) approaches that reduce the costs of managing MS; and (iii) alternative financing models. Make the full range of DMTs available to people with active relapsing forms of MS, regardless of their treatment history, in order to speed up adoption of the

Ensure that MS healthcare professionals can take the time to educate people with MS about strategies to manage their disease. Emphasize the importance of

strategy (**Figure 1**) for global dissemination and implementation of the report's

Presentations to healthcare professionals have been given at nine meetings in five continents; many of these arose as a result of personal approaches from neurologists who are keen to speak about the recommendations and the brain



Figure 1. The six strategic steps shown are part of an overall plan to encourage the widespread adoption of the MS Brain Health approach and recommendations.



Figure 2. The report recommends a therapeutic strategy that aims to preserve central nervous system tissue and maximize lifelong neurological reserve (an important component of brain health) by reducing disease activity.

- DMTs, disease-modifying therapies.
- The multidisciplinary composition of the author and working groups has generated momentum for dissemination of the report to relevant audiences.
- The authors and Steering Committee warmly welcome proactive engagement by local stakeholders who desire to see change and who can build on this momentum

References

- 1. Giovannoni G et al. Brain health: time matters in multiple sclerosis. 2015;doi:10.21305/MSBH.001
- 2. MS Brain Health. About the MS Brain Health initiative. Available from: http://www.msbrainhealth.org/ about (Accessed 26 April 2016).
- 3. Edlin M, Sonnenreich P. *PT* 2008;33:611–14.
- 4. Owens GM et al. Am J Manag Care 2013;19(16 Suppl):s307–12.
- 5. Hartung DM et al. Neurology 2015;84:2185–92.
- 6. MS Brain Health. @MSBrainHealth. Available from: http://www.twitter.com/msbrainhealth (Accessed 26 April 2016).
- 7. Twitter analytics for @MSBrainHealth. Available from: http://analytics.twitter.com (Accessed 26 April 2016; login required).
- 8. Brain health: time matters in multiple sclerosis slide deck for presentation to healthcare professionals. Available from: http://msbrainhealth.org/article?s=brain-health-time-matters-in-multiple-sclerosisslide-deck-for-presentation-to-healthcare-professionals (Accessed 28 April 2016).

To read the full report and consensus recommendations, visit www.msbrainhealth.org





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3	Q4				Q4
upports the initiative					
priorities for change					
	5. Develop vehicles to facilitate and track change				
	6. Measure adoption				



Figure 3. Champions of MS Brain Health and endorsing organizations are disseminating the report and its recommendations in over 40 countries worldwide.



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